# John Anthony's Flora of Sutherland



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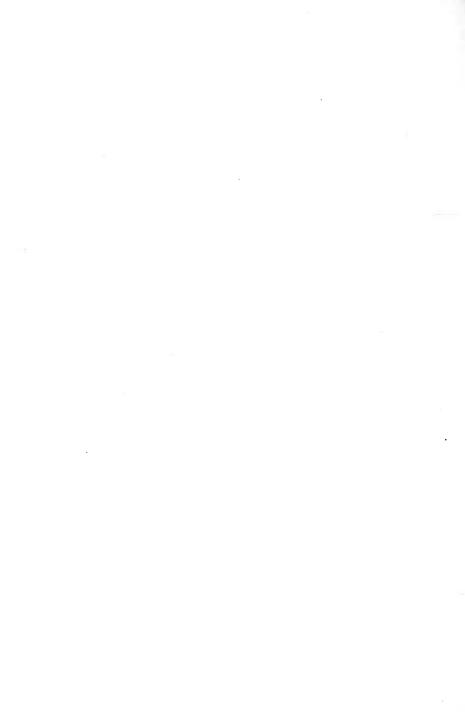
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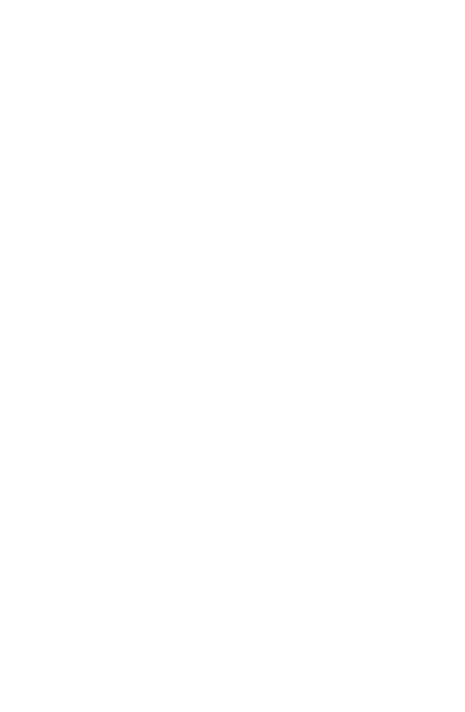
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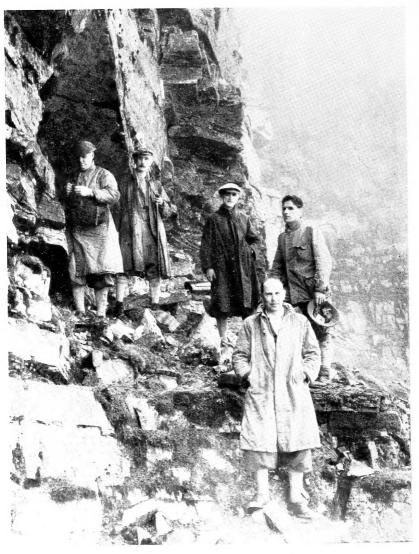




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John Anthony (foreground) together with left to right Professor R. J. D. Graham, Professor Sir William Wright-Smith, Mr J. L. Smith and Sir George Taylor

# John Anthony's Flora of Sutherland

EDITED AND COMPILED BY J. B. KENWORTHY

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FIS\107 ANTHONY, J. John Anthony's flora BPSN2 aa

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#### **Editorial Note**

John Anthony died in June 1972 at the age of 78 just at a time when his Flora of Sutherland was almost completed. His interest in the Scottish Flora was a long one stemming from student days in Edinburgh, where he read both arts and science. He completed his B.Sc. in 1926 and that same vear he became a Fellow of the Botanical Society of Edinburgh. After some time in Malaya in the late 1920s he returned to Scotland as an assistant lecturer in Botany, first in Dundee then later as lecturer in Forest Botany in the University of Edinburgh. Retirement in 1958 was for John Anthony the stimulus to complete, what was for him both a challenge and a labour of love, the first county flora for Sutherland. He spent nearly twenty years of his life on this project, assisted for much of this time by his wife. I personally recall him as a quiet, modest vet friendly individual, whom I met from time to time in Bettyhill, the centre of his interests in Sutherland. A retired Army Captain from the First World War, holder of the Military Cross, a teacher, a scholar, an expert on wood anatomy, a man widely travelled in both the Far and Middle East and now the author of a county flora, such a combination of attributes is rare especially in our modern specialised way of life.

In compiling John Anthony's Flora, I have edited and added to sections he produced for the original manuscript. The sections concerned with Botanical Districts and Botanical Exploration are close to John Anthony's original, whereas the bibliography has been extended a good deal. Both the Index of Botanical Names and the Index of Latin Names have been added to the original script. I am particularly grateful to Mr Donald Paterson of the Botany Department of Aberdeen University for his help in this matter. I am responsible for the sections: The County of Sutherland, Climate, Geology, Soils, Vegetation and the Influence of Man, Dr Roy Watling kindly provided a short note on the Fungal Flora of Sutherland. Photographs are acknowledged individually. Throughout I have tried to blend my style with that of John Anthony. The main part of the flora has been edited and checked as far as possible and a list of authorities is to be found at end of the flora. In most cases the records are somewhat detailed being specific to the parish. While I have checked almost all the records with the Atlas of the British Flora, or with my personal experience of the north coast of Sutherland, I think there are very few doubtful records. In fact, I suspect that some of the older records may be confirmed and extended in the light of more extensive surveys especially in the west of the county. Thus any additional information or correction to the contents of the flora would be most appreciated.

I am indebted to Professor C. H. Gimingham for his comments upon the script and to Mr R. Mackecknie and Mr J. Grant Roger for similar services. I hope that the members of the Botanical Society of Edinburgh who have sponsored this flora will feel that they have made a positive contribution to Botany in Scotland with its publication.

Colour plates for a Flora are very expensive and I am grateful for the opportunity to use Shirley Poole's paintings. Permission to print the cover was given by Miss Shirley Poole of Middlesborough and by Misses Jean, Christine and Elsie McKay of Tigh-na-craig Bettyhill. The painting is one of many by Miss Poole to be found in several houses in Sutherland.

It took John Anthony a considerable time to compile his manuscript and it has taken me a number of years to produce the completed flora. During this time the Botanical Society of Edinburgh have shown immense patience and have always been in every way an encouragement.

J. B. Kenworthy June 1976 University of Aberdeen

# Acknowledgements

I wish to thank

Dr D. Radeliffe of the Nature Conservancy for lists of species mainly alpine from the Western Mountains

Mr D. McClintock for lists of species from Durness which he had compiled over a long period

Mr A. G. Kenneth of Ardrishaig for lists from the northwest which included new localities and species of *Hieracia* 

Mr P. Sell who not only named but supplied a record of that genus in Sutherland

Mr J. Dandy who supplied a record of *Potomageton* Dr Yeo who named all my gatherings of *Euphrasia* Dr Edees who named the *Rubi* 

Professor J. R. Matthews who named the *Rosa* species Dr Ursula Duncan for her contribution of lists from some remote areas I am grateful to Dr Perring and his staff at Monkswood for their constant interest in my researches

> John Anthony January 1972 Edinburgh



# The County of Sutherland

From the North Sea to the Atlantic Ocean the far north of Scotland is an area quite unlike any other in Britain. Sutherland is a countryside apparently compressed by the sky into the great central plain of A'Mhoine, and a coastline torn to pieces by storm seas. A large county, the fifth largest in Scotland, it suffers from an overabundance of peat and rock. This empty landscape has hidden within it evidence of a time of trees and straths crowded with people. Now the population of Sutherland live in sheltered and fertile areas along the coast; isolated houses in scattered crofting communities.

The grandeur of the county is expressed in its extensive horizon. In many places a view of 20 miles is not uncommon. The north coast is formed of precipitous cliffs with only a few sandy beaches. From Cape Wrath to Strathy Point the cliffs are for the most part over 400 ft in height but reach 900 ft on Clo Mor. The two Kyles of Durness and Tongue, each with wide sands and set against a backcloth of high mountains, break this flat northern coastline. In contrast, Loch Eriboll with its fiord-like contours has an isolated beauty of its own and is at the same time one of the greatest natural harbours in Britain. Of the northern mountains, Ben Loyal and Ben Hope are the most outstanding, the former with its steep northern face and central castle dominating the countryside for a great distance around. Even Coldbackie Hill (the watch hill), although only 1000 ft, has imposing conglomerate cliffs rising almost vertically from the sea and commanding a view from the Hebrides to the Orkneys.

The eastern boundary with Caithness follows a watershed from Drumhollistan in the north to the Ord in the east. From Melvich to Kinbrace along Strath Halladale, the boundary is one of wild moorland and deer forest. Moving further south, Kinbrace is the gateway to the strath of Kildonan, where gold and semi-precious stones are found. Helmsdale, a fishing port of some repute in earlier times, lies at the southern end of the boundary with Caithness.

Along the south-east, bounded by the Moray Firth, is a low flat coastline fringed with sand dunes and one large inlet, the land-locked Loch Fleet. Further north, near Loth, another loch with its accompanying swamp was drained during the last century. In this area ample evidence of man's influence over some considerable time period can be found in the remains of brochs and chambered cairns on the flat coastal areas south of Loth. The south-east of the county from Brora to Bonar Bridge is the most densely populated area in the county, lying as it does on good soils derived

from friable sandstones and in an unexposed and warm climatic zone. Around Golspie these conditions result in good agricultural land and extensive woodlands.

On its southern boundary, the county is one of contrasts in scenery. From Bonar Bridge westwards up the Shin valley trees dominate the countryside; many of them planted along the Kyle of Sutherland by the Forestry Commission. The boundary then follows the course of the River Oykell, in its broad valley to a source on the slopes of Breabeg (2670 ft) and southwards along the watershed to the Cromalt Hills (1692 ft). The western end of the boundary enters the sea at Loch Kirkaig after traversing Loch Veyatie and Fionn Loch. As well as crossing a great range of geological structures from the new sandstones of the east to the very old Lewisian gneiss of the west, through Durness limestone at Elphin and Inchnadamph, the south of the county contains a wide range of plant habitats due to a variety of climatic conditions. The west coast and higher hills of central Sutherland are extremely exposed, while the east coast and Kyle of Sutherland are comparatively sheltered. The west coast of Scotland is renowned for its beauty although this is associated more with the counties of the south. However, the coastline of Sutherland has tremendous variety and beauty, from the cliffs of Stoer Head and the glorious white sands of Achmelvich to the mountains of Suilven, Cannisp and Quinag. Many sea lochs and bays along the west coast give a long, tortuous coastline which is, for the most part, rocky but with wide sandy bays at Sandwood, Scourie, Clashnessie, Stoer, Clachtoll and Achmelvich. Innumerable islands, of which Handa and Oldany are the largest lie off the coast; some are used for grazing but none are inhabited. The topography of this area is most important for plant life, since any place which affords shelter from the westerly winds can reap the benefit from a generally mild climate on the west coast. In the far north-west of the county lies the desolate and extremely exposed coastline of the Parphe, a highly inaccessible area of great beauty and interest. The Parphe was mentioned in Blaeu's Atlas as having many wolves and later Gordon cites the area as one with an abundance of red deer. The geological structure is one of Lewisian gneiss, covered by blanket peat, with scattered outcrops of sandstone and limestone while bare quartzite screes occur on Ben Stack and Foinaven.

In the interior, Sutherland is a vast plain of peat, broken only by the isolated mountain peaks of Ben Hope, Ben Loyal and Foinaven in the north; Ben Griam More, Ben Griam Beg, Ben Armine and Ben Klibreck in the centre and Ben Stack, Ben More Assynt and the trio of Cannisp, Quinag and Suilven in the west.

The county may be divided into three drainage basins. To the north the rivers drain into the Pentland Firth. These are the Dionard into the Kyle of Durness, the Hope from Loch Hope, the Borgie and the Naver into Torrisdale bay, the Strathy from Loch Strathy and the Halladale which enters the sea at Bighouse bay. To the west three large rivers flow into the

Atlantic Ocean; the Laxford from Loch Stack, the Inver from Loch Assynt and the Kirkaig from Loch Veyetie. In the third zone the rivers flow into the Moray Firth. These are the Helmsdale, Brora, Golspie, Fleet, Evelix and the Oykell with its tributaries the Cassley and the Shin. There is a very large number of lochs in the county, especially in the west, varying in size from Loch Shin (17 miles) to mere lochans. They provide an interesting and diverse habitat for aquatic plants, from the alkaline lochs of the limestone districts (also famed for their large trout) to the peaty and highly acid lochans scattered throughout the west and over the central plain.

# Geology

A short section on the geomorphic pattern of the preglacial landscapes of Sutherland is included in this flora because in many cases the composition of these older rocks has a dominating control over soil formation within the county. Thus geological formations influence the distribution of vegetation types and individual species. The geology of Sutherland is as varied as anywhere in Europe although much of the variation is found in the extreme east and west of the county, the central belt being dominated by Moine Schists.

A most important feature of solid geology in Sutherland is the great Moine Thrust plane running SSW from Loch Eriboll, which separates the eastern Moine schists from the complex assemblage of Lewisian, Torridonian and Cambrian rocks of the west. The oldest rocks of the area are thought to be the Lewisian gneisses which form the basic rock structure of Sutherland. This structure was intensively folded and metamorphosed to give a denuded surface upon which the Torridonian sandstones were laid down during the Pre-Cambrian. Relict hills of sandstone are clearly seen overlying the Lewisian strata around Lochinver. Early geologists likened Suilven, Cannisp, Cul Mor and Cul Beag to Torridonian ships on a Lewisian sea and this description is most apt. The gneiss, with its numerous intrusive dykes of basalt, granite and basic rocks, is intensively ice-worn, giving rise to grey knolls and ridges, polished smooth and bare, which retain their comparative level except towards their eastern boundary where it rises steeply to form the western flanks of Cranstackie, Foinaven, Arkle and Ben Stack. Innumerable hollows have been scooped out by ancient glaciers and these now form hundreds of lochans, which with the large expanses of bare rock, are characteristic of this formation. In the extreme north, near Cape Wrath, Torridonian sandstones form magnificent sea cliffs at Clo Mor.

The Cambrian strata, including Durness limestone, overlie Torridonian sandstones. Mudstones, quartzites and grits are also included in this period. Quartzite forms a variable layer up to 500 ft thick in places, capping the sandstones on Foinaven in the south, while forming the sea cliffs of Whiten Head in the north. This quartzite breaks up into sharp fragments resulting in large screes which characterise the landscape. Where quartzite predominates the land is barren and devoid of vegetation. In its upper surfaces this old sea bed is fine grained and compact and has, running at right angles, cylinders of the same material caused by the action of sand worms. This gives the name pipe-rock to the quartzite. Above the



Fig. 1 County of Sutherland. Place names mentioned in the text

pipe-rock is a band of brown calcareous shale, with thin dolomite beds and flaggy grits up to 50 ft thick which are traversed by dark markings, originally attributed to sea-weeds, and thus named fucoid beds. On weathering the shale produces a yellowish clay, which being lime-rich, has marked effects upon the accompanying vegetation. The upper layer of limestone is grey in colour and outcrops from Durness to Assynt. Cambrian limestones of the Durness area are the thickest in Scotland. They are extremely variable in quality, in some places containing large amounts of dolomite, while in others siliceous matter is dominant.

Millions of years later the great Caledonian earth movements forced a mass of older metamorphic rocks, the Moine series, westward over the Cambrian series until a narrow wedge of Cambrian rocks was left exposed to the west of the Moine Thrust plane. This process gave rise to the present geological framework of two areas of Pre-Cambrian rocks separated north

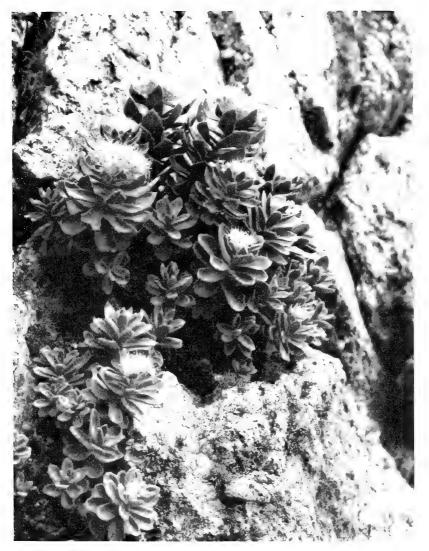
to south by a band of Cambrian limestone.

The rocks of the Moine series are so called from their occurrence in A 'Mhoine, a tract of peaty moorland which extends east of the Moine Thrust. From a lithological point of view the Moinian rocks are as monotonous as the Lewisian are diversified. Highly siliceous, flaggy granulite is widely distributed within this series together with finer grained peltic rocks and bands with distorted pebbles from original conglomerates. The flattish areas at 900 to 1000 ft are the remains of planation surfaces with Ben Hee and Ben Klibreck as inselbergs (island mountains) of Pre-Cambrian rock rising from a Triassic desert. This wide tract of country, from Whiten Head to the Cromalt Hills, westward to Strath Halladale and Strath Ullie, is covered with deep peat forming rough moorland and bog.

From the Dornoch Firth to Helmsdale there lies a belt of Old Red Sandstone some five miles wide. Traces of this formation occur on the summit of Ben Armine and at Strathy and Tongue on the coast. Ben Griam More and Ben Griam Beg form terraced pyramids of conglomerate. Ben Loyal owes its distinctive outline to the massive crystalline syenite of

which it is composed.

Between the Old Red Sandstone and the Moray Firth, from Golspie to Helmsdale, lies a narrow belt of the newer rocks forming successive layers of sandstone, shale and limestone. These rocks are overlaid with later glacial drifts and boulder clay. More recent still are the peat deposits and the areas of blown sand which form dunes at many places around the coast.



 $(J.\ B.\ Kenworthy)$ 

Plate 1 Sedum rosea Roseroot



(J. B. Kenworthy)

Plate 2 - Carex rostrata and Equisetum fluviatale Bottle Sedge and Water Horsetail

#### Soils

The complex nature of geological structures, extreme conditions for weathering and the glacial outwash process have led to a wide array of soil structures in Sutherland. Modification of these chemical and physical units has taken place since the last glaciation over a period of 10,000 to 15,000 years. High precipitation and low evaporation in northern climates results in a net downward movement of water. In addition, the influence of man in promoting grazing and burning has modified the vegetation thereby affecting soil development.

The soils of Sutherland are dominated by the products of older metamorphic rocks and are generally acid. The reasons are threefold; the soils are derived from a solid geology which is low in bases such as calcium and magnesium; the rocks are not weathered rapidly; and most of Sutherland is in an area in which movement of water in the soil is predominantly downward. Thus a situation arises that any plant nutrients which are released from rocks in the weathering process are quickly rendered unavailable to the vegetation. For large parts of Sutherland the main source of plant nutrition is rainwater.

În regions with outcrops of limestone, dolomite, calcareous schists, hornblende schists, calcareous sandstone etc., bases, mainly calcium and magnesium, derived from the easily weathered rock structures, replenish

the soil with nutrients and ameliorate soil acidity.

In such areas the effects upon soil and vegetation are most marked. This feature is very striking all along the edge of the Moine thrust, but particularly easily viewed along the shores of Loch Eriboll between Kempie and Heilam, at Durness on the massive outcrops and further south at Inchnadamph. The contrast with more acid soils is apparent in the absence

of undecomposed organic remains in these soils.

Much of the soil in Sutherland is made up from organic remains of plants accumulating under anaerobic, acid conditions. The major formation is blanket peat developed as a continuous layer of acid organic material, sometimes formed on bare rock but usually over a mineral skeletal soil—always in areas of high rainfall or high humidity. This layer varies in thickness from a few centimetres to over a metre. The upper part of the peat is made from undecomposed vegetation, usually composed of Trichophorum caespitosum, Eriophorum and Sphagnum spp. in the west, whereas on the east and north coasts Calluna vulagaris and Erica spp. are the contributary species. The former give a dark amorphous peat and the latter a browner fibrous peat. In the west this peat formation can often be

recognised from a distance as eroded hags with shining west faces made up from the moss  $Rhacomitrium\ lanuginosum.$ 

In areas where the topography is gently undulating ground or a flat enclosed basin, water accumulates giving rise to deeper peat sometimes greater than 10 m in depth. Conditions of this type are found throughout Sutherland but predominate in the north and west, especially in the older gneiss landscape. This topogenic peat is made up entirely from plant remains reflecting in the vegetation layers the history of climatic change in the area since the last glaciation. Layer upon layer of partially decomposed plant remains show the beginnings of post-glacial vegetation with sedges and reeds passing through drier periods when trees invaded the area. Some of the tree stumps in this area, birch and pine, remain embedded in the peat. Birch stumps occur throughout a large depth of peat whereas pine stumps occur usually in one layer but some times as two distinct horizons. Above the tree stumps, dark peat formed from Calluna and Eriophorum is present, reflecting a cooler wetter climate. Finally the uppermost peat is mainly composed of Sphagnum spp.

Where glacial debris has been deposited in the straths of Sutherland or on rock surfaces with only a slight slope, soils have developed which show a structure involving three basic horizons. The mineral soil consists of an A horizon from which minerals and in some cases small particles have been removed; a B horizon into which minerals are deposited and a C horizon of unaltered parent materials. This is usually capped by organic debris in various stages of decay in which the name of the horizon describes the organic matter and its state of decay, litter, fermentation and humus.

A brown earth soil develops in association with herb rich vegetation, usually bearing birch forest in the north and east with oak in the west, or where trees have been removed, good agricultural grassland. Here the A and B horizons are indistinct and good mixing in the soil maintains a relatively even distribution of minerals within the soil, showing little signs of leaching.

If the underlying rocks are poor in minerals and soil develops in an area of high rainfall, above the tree line or where heather has been encouraged by grazing and burning, then a podsol of some type may result. Podsols are characterised by a leached A horizon from which the sesquioxides of iron and aluminium have been removed leaving an ash grey layer. These compounds, together with other nutrients, are deposited at a lower level within the soil giving either a red stained layer of soil, in the case of the iron podsol, or two layers red stained with iron and black stained with humus particles in an iron humus podsol. Throughout central and eastern Sutherland the thin iron pan podsol with a characteristic well defined layer of oxides, 20–30 cm below a cap of raw humus, is widespread. These soils are easily examined in roadside quarries on the A836 and the A897.

Richer soils are confined to straths in the north and east whereas the strong influence of Durness limestone is seen in the west. Rendzinas are soils which develop from highly calcareous parent material as shallow soils dark brown in colour and generally with a low clay content. They form a neutral mull-like humus. In Sutherland they support largely grassland and agricultural land having in general a great diversity of species, both higher plants and cryptogams. Rendzinas are found from Balnakiel in the north to Inchnadamph in the south.

On high ground in the east as in the west above 2000 ft the soils are thin and skeletal. These mountain tundra soils have poorly developed horizons caused by weak chemical or biological processes. Such soils are formed under very cold conditions and are composed of angular fragments. In patterned mountain tundra soils the fragments are frost sorted to form solifluction terraces usually bounded by vegetation (Crampton, 1912). The Hamada mountain tundra soils have a continuous layer of fragments with frost sorting absent.

Among the more infrequent soils, one is particularly important in the coastal vegetation of Sutherland. At Invernaver calcareous sands containing 2–4 per cent CaCO<sub>3</sub> are blown by coastal winds to a height of 400 ft above the beach. The calcium is derived from shell fragments in the sand. On this sand, which shows little development into horizons, except for banding caused by fresh additions of sand, *Dryas octopetala* is probably as abundant as anywhere in Britain. Where springs seep through the sand, calcareous flushes develop in which *Primula scotica* is to be found.

#### Climate

The climate of Sutherland shows a wide range of variability. A striking contrast exists between the wetter, milder, climate of the more exposed and rugged west coastal district and that of the drier eastern and northern shores. In the western coastal zone the prevailing winds during the winter and summer months are from the south-west. These bring abundant moisture from the Atlantic Ocean. Rain occurs on more than 200 days each vear. The annual average rainfall is  $150~\mathrm{cm}$  (  $60~\mathrm{in}$ .) while the mean annual temperature is 10°C (50°F). The lowlands on the Moray Firth coast lie in the dry belt of eastern Scotland; the average annual rainfall is 77 cm (31 in.). During the spring and early summer cold northerly and northeasterly winds prevail, often bringing sea-fog. The mean annual temperature is 6.2°C (45°F). A further difference is in the range of temperature. In the west the January mean is 6.2°C (45°F) and that of July 12.2°C (54°F). The comparative figures for the east are, January 3.3°C (38°F) and July 14°C (57°F). In the north coastal region, as in the east, cold northerly and north-easterly winds blow during the spring and early summer; the average rainfall is 90 cm (36 in.) and the mean annual temperature 6.2°C (45°F). In all coastal areas snow seldom lies long and the winters are comparatively mild for these latitudes. In the interior, however, the climate is more rigorous. The winters are long and severe, with snow persisting on the hills. Rainfall is high, especially in the western hills, Ben More Assynt 250 cm (100 in.), but declines towards the east. In all areas wind exerts a profound influence, often blowing at gale force, but precise data are not recorded. In these latitudes the amount of daylight differs widely between summer and winter. On the north coast daylight in June approximates 20 hours per day while in January there is scarcely 6 hours. The daily average amount of sunshine in summer is 3 hours and in winter 1 hour. Due to the low elevation of the sun many areas particularly in the valleys receive no sunlight during some of the winter months.

On the whole then, the summers have long daylight but winter days are short and in the autumn frosts come early affecting the valleys which are shaded from the sun by high hills. The winters are long, dark, dreary and boisterous.

Birse and Dry (1970) have assessed the climate of Scotland on the basis of accumulated temperature above  $5\cdot6^{\circ}\mathrm{C}$  and potential water deficit. Such parameters are thought to contribute to a major control of plant growth in terms of potential growing season and utilisation of available water.

Their classification produces approximately eighteen climatic sub-types of which fifteen are present in Sutherland. Of this wide range of sub-types, those described as 'warm' have accumulated temperatures of over 1375 day degrees and are absent from Sutherland, while others ranging through 'fairly warm' (1100–1375 day degrees) 'cool', 'cold', 'very cold', to 'extremely cold' (0–275 day degrees) are present. These units cover the range 'dry' to 'wet' and occur over a physiographic range from lowland to mountain. However, any assessment of climate for Sutherland suffers from a lack of information; the whole county map being based upon six weather stations.

A large part of Sutherland is classified as cool wet foothills and uplands, slightly drier in the east but still rather wet. A coastal zone of fairly warm moist lowland stretches around the west and north coasts in a band, which is never more than 5 miles wide. On the north coast it rapidly merges with a 'cool' zone whereas on the west coast the transition may take 10 or 20 miles and traverse warm but increasingly wetter zones.

Another climatic feature which dominates the Sutherland scene is exposure. In a second climatic map Birse and Dry (1970) have used exposure and accumulated frosts as a basis for their climatic regions. As the assessment of exposure is based largely upon changes in terrain and this is so variable in Sutherland, the picture produced is extremely complex. Most of Sutherland is classified as 'exposed', 'very exposed' or 'extremely exposed', having average wind speeds ranging from 4.4 m/s (8.9 m.p.h.) to greater than 8.9 m/s (18.0 m.p.h.). The only areas classified as sheltered are stretches of country around Bonar Bridge, Strath Oykel, west of Dornoch and a small area near Loch Brora. These have a mean windspeed below 2.6 m/s (5.85 m.p.h.).

The 'moderately exposed' region having wind speeds between 2.6 and 4.4 m/s is generally absent from the west coast but stretches inland along the straths of the east and north coasts. These areas represent the drainage pattern of the sloping Moine thrust which is normally N.W.—S.E. but is also cut to the north by Strathnaver and Strath Halladale. This area of sheltered to moderately exposed ground covers only 10 per cent of Sutherland but is of considerable importance to the general flora of the area, corresponding to the main limits of natural woodland. Woodland is mainly birch forest but with pine, rowan and hazel and, in some places (Assynt) oak; birch and rowan extend beyond this area into exposed sites as high as 1000 ft on Ben Loyal.

The effect of climate on vegetation is very clearly demonstrated, even to the casual observer, on the road from Bonar Bridge to Tongue. Passing along the Kyle of Sutherland the vegetation is largely wooded with some plantations. Stands of birch show a high proportion of Betula pendula interspersed with planted beech and oak. The decrease in tree cover becomes obvious around Lairg or on the high road above the Falls of Shin, where birch is the dominant tree and Betula pubescens ssp odorata the

species. There is a marked change in climate to cool, rather wet, moderately exposed with moderate winters. Along Strath Tirry to Crask the climate changes mainly in having a greater exposure. Large stretches of this area, with easy access to the main road, have been planted in the past 15 years, although native trees are few and far between, occurring only in sheltered areas and away from grazing pressure. Beyond Crask there is little planting until one descends into Strath Vagastie. Here isolated trees of birch, hazel and rowan line the river side. The high area between Crask and Altnaharra is classified as cool, wet, exposed with rather severe winters. Altnaharra on the shores of Loch Naver has a much better climate. This area, described as cool, wet, moderately exposed, with moderate winters, has plantations around Altnaharra Lodge and extensive natural birch woods on the northern slopes of Ben Klibreck.

Along the shores of Loch Naver on the Bettyhill road, the climate improves rapidly so that even at Syre, some 15 miles from the coast, the climate is classified as fairly warm, rather wet, moderately exposed with moderate winters. Apart from this small area of ameliorated climate, the road to Tongue continues through an area of cool, wet, exposed country with moderate winters until one descends into the Kyle of Tongue where a remarkable change occurs over a short distance on the northern slopes of Ben Loval.

An increasingly large area of land adjacent to this road is being planted with Sitka spruce and *Pinus contorta*, with a few amenity species on the road-side. It is the change in what is left of natural woodland which is most interesting. Two species of birch form the major tree cover with rowan, hazel and alder occurring irregularly. Although *Betula pubescens ssp. odorata* occurs wherever trees are present on this 50-mile traverse of Sutherland, *Betula pendula* is found only in three areas along the road and these coincide with the most moderate climates. At the southern end up to Inveran the species is frequent but absent from Lairg to Tongue, except for a small number at Altnaharra which may have been planted.

## **Botanical Districts**

In his scheme for the recording of plant distribution in Great Britain, H. C. Watson divided the county of Sutherland into two vice-counties: East Sutherland (v.c. 107) the area drained by rivers flowing southeastwards into the Moray Firth and West Sutherland (v.c. 108) where the rivers flow west and north into the Atlantic Ocean. Vice-counties are here further subdivided into smaller districts – the parishes. These parishes are based on the river systems and their mutual boundaries are, for the most part, traced along the watersheds. The parishes are as follows:

v.c. 107

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN v.c. 108

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

Creich lies in the south of the county. It is bounded on the west by Assynt, on the north-west by Eddrachillis, on the north-east by Lairg and Rogart, on the east by Dornoch and on the south by Ross and Cromarty from which it is separated by the River Oykell from its source on Ben More until it flows into the Kyle of Sutherland and Dornoch Firth. The parish extends to 173 square miles and comprises the left bank basin of the Oykell river. The underlying rocks are schists of the Moine series and in the north-west Cambrian quartzite on the hill tops. The land is everywhere hilly but mountainous in the north-west where it reaches an elevation of 3273 ft on Ben More Assynt. The greater part of the parish is high bleak moorland. Arable land occurs on the low ground from Invershin to Bonar Bridge, while the lower slopes are planted with pine and oak woods. By the Kyle of Sutherland the marshy meadows are fringed with alder and willows, Iris pseudacorus and Filipendula ulmaria. The Shin valley is well wooded with birch interspersed with ash, elm, bird cherry and gean. The ground flora includes Anemone nemorosa, Ajuga reptans, Endymion non-scriptus, Lysimachia nemorum, Oxalis acetosella, Trollius europaeus, Viola riviniana, Veronica chamaedrys and the rare Ranunculus auricomus. In the oakwoods are found Juniperus communis, Lathyrus montanus, Lonicera periclymenum, Luzula campestris, L. pilosa, L. sylvatica, Stellaria nemorum, Teucrium scorodonia and Trientalis europaea. Species of Rubus and Rosa abound on the roadside. More interesting, however, is the considerable range of montane species growing at altitudes up to 3000 ft on Ben More Assynt. In addition to the commoner species such as Alchemilla alpina, Arctous alpinus, Armeria maritima, Carex bigelowii, Cerastium alpinum, Empetrum

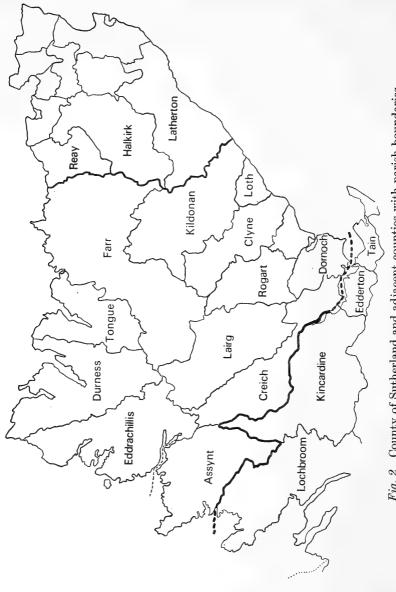


Fig. 2 County of Sutherland and adjacent counties with parish boundaries

hermaphroditum, Luzula spicata, Trollius europaeus, Silene acaulis there are the rarer Juncus trifidus, J. biglumis, J. castaneus, Draba norvegica, Poa alpina and Deschampsia alpina.

Lairg, an inland parish of 194 square miles, is bounded on the north by Farr, on the east by Rogart, on the south by Creich and north-west by Eddrachillis. The parish consists of the broad valley formed by the chain of lochs – Merkland, a'Ghriama, and Shin. The hills along the watershed north and south of the lochs rise to 1000 ft and on the northern boundary to 2864 ft on the shoulder of Ben Hee. The numerous streamlets all drain into the lochs. The underlying rocks are of granite and schists. The whole area is peat covered. At Shinness, at the southern end of Loch Shin, a considerable area has been reclaimed for agriculture. Recently the level of the lochs has been raised by a dam at the south of Loch Shin, while a second dam in the Shin valley below Lairg has formed a new loch eliminating a large marsh. Extensive new forestry plantings have been made in Strath Tirry. Accompanying these changes there has been road reconstruction. The Flora of the parish is of a typical moorland type.

Rogart – like Lairg an inland parish – is bounded on the north by Farr, north-east by Clyne, south-east by Golspie, south by Dornoch, south-west by Creich and west by Lairg. Its area is 97 square miles. The northern part of the parish is drained by the upper reaches of the Brora river and the southern part of the Fleet river. The land is hilly with elevations ranging from 600 to 1000 ft on the boundary hills. The rocks are of gneiss and granite, covered with peat, so that the parish is mostly moorland and bog. In Strath Brora and Strath Fleet there are some 2000 acres of arable land. In the vicinity of Rogart village the following species, all very rare in the county, are to be found: Barbarea vulgaris, Equisetum pratense, Helianthemum chamaecistus, Lemna minor, Lepidium heterophyllum, Nuphar pumila, Lythrum portula, Teesdalia nudicaulis and Vulpia myuros.

Dornoch parish lies in the south-east of the county. It is bounded on the west by Creich, on the north by Rogart, Golspie and Loch Fleet and on the east and south by the Dornoch Firth. A small parish of some 34 square miles, it has a relatively long coastline (12 miles), which is low and sandy and fringed with dunes and links. Inland the land is hilly and rises gently to 1100 ft in the north-west. The rocks are mainly of sandstone. The soil near the coast is sandy, further inland of a black peaty loam bearing coniferous plantations. The lower slopes of the hills are occupied by crofts. Plants, very rare in Sutherland, occurring at Cuthill Sands are Teesdalia nudicaulis and in a pond Lythrum portula; in a marsh at Dornoch Lemna minor, Ranunculus sceleratus and Typha latifolia grow sparingly – all threatened with extinction due to drainage. An interesting area about 1½ miles in extent lies west of Dornoch Point and shows transitions from

salt marsh to links. Characteristic plants here are Armeria maritima, Aster tripolium, Plantago maritima, Salicornia europaea, Suaeda maritima, Spergularia media, Triglochin maritima. Particularly on areas where turf has been removed are Juncus gerardii, J. balticus, both abundant, and Carex maritima, scarce. On damp grassy places grow Coeloglossum viride, Listera ovata, Dactylorchis incarnata, D. purpurella and Centaurium littorale. On the links Astragalus danicus, Arabis hirsuta, Sedum acre, Juniperus nana, Empetrum nigrum, all plentiful and Draba incana and Antennaria dioica rare. On the sandy shore Cakile maritima, Salsola kali and Atriplex glabriuscula abound. Another interesting area is at Cambusmore. Saxifraga hypnoides (at sea-level) Helianthemum chamaecistus both frequent, and Agrimonia eupatoria (scarce), while on cliff ledges Sorbus rupicola. Ajuga pyramidalis and Orthilia secunda, all very rare, are to be found. The birch woods here contain Trientalis europaea, Melica nutans and M. uniflora. In the very wet areas are Carex remota, C. curta and Equisetum palustre. The somewhat brackish areas at the waters edge have Blysmus rufus (plentiful) and Glyceria maxima and Apium inundatum, both in the only localities known in the county, scarce.

Golspie parish is bounded on the west by Rogart, on the north and northwest by Clyne, on the south-east by the Dornoch Firth and on the south by the Loch and River Fleet which separate it from Dornoch. It extends to 35 square miles. The coast is low and sandy with dunes and links but north of Golspie village it is low and rocky. On the shore at Golspie is a dense tract of Elymus arenarius with Cakile maritima and Atriplex species. Inland is a large triangular tract of arable land, the best in the county. On the low sandy flats and lower slopes of the hills are coniferous plantations with a ground flora of Vaccinium myrtillus and Calluna. Interesting plants here are Goodyera repens and Trientalis europaea, both species plentiful, and Purola minor, Moneses uniflora and Linnaea borealis all very scarce. The Golspie burn rises in the north and runs through the middle of the parish. In its lower course through Dunrobin Glen its banks are well wooded with alder, birch, ash, elm, oak, gean, bird cherry and goat willow. In the policies of Dunrobin Castle are many exotic trees. On the Mound rock Saxifraga hypnoides, Helianthemum chamaecistus and Ajuga pyramidalis - very rare. Rosa and Rubus species abound in the hedgerows and roadsides.

Clyne parish, in extent 118 square miles, is bounded on the north-west by Farr, on the north-east by Kildonan and Loth, on the south-east by the Moray Firth and on the south-west by Golspie and Rogart. The sea-coast,  $3\frac{3}{4}$  miles long, is low and sandy. The underlying rocks bordering the coast are of sandstone, shale, limestone and coal; inland of schists. The land is hilly rising in the north-west to the shoulder of Ben Armine on which arise tributary streams which join the Brora river before it enters Loch

Brora. The surface is almost all moorland and rough pasture. In the birch woods bordering the loch grow *Trientalis europaea*, *Corydalis claviculata* and on rock ledges the rare *Orthilia secunda*.

Loth, the smallest parish in the county, extends to 29 square miles. It is bounded on the north by Kildonan, on the south-west by Clyne, and on the south-east by the Moray Firth. It comprises the drainage basin of the Loth river with its tributaries and several streamlets all of which reach the sea by deeply cut gorges clothed with birch and willow. The short coast line is sandy with dunes and a few rocky headlands. Inland is a narrow zone of cultivated fields with a fertile soil. In the cornfields Centaurea cyanus is abundant. On the roadside Calystegia sylvatica and Pentaglottis sempervirens are frequent. Rubus species line the hedgerows. Above the road the ground rises steeply. The lower slopes are occupied by crofts. Towards the northern boundary the hills rise to 2000 ft on Bein Uarie. The rocks are of red sandstone and on cliff ledges and screes Sedum rosea, Saxifraga hypnoides, S. stellaris and Chamaepericlymenum suecicum occur. On the moors Alchemilla alpina, Lycopodium selago, L. alpinum (very scarce) and Rubus chamaemorus grow. In Glen Sletdale Lemna minor has recently been recorded.

Kildonan parish comprises the drainage basin of the Helmsdale river with its tributaries and extends to 210 square miles. It is bounded on the west and north by Farr, on the east by Caithness, on the south-east by the North Sea and on the south by Loth and Clyne. The coast, scarcely 5 miles long, has a shingle beach from which the ground rises steeply while to the north of Helmsdale it is formed of cliffs rising to 650 ft at the Ord. In the north-west are many large lochs the streams from which unite to form the Helmsdale river which flows through a wide valley and passing through a narrow gap enters the sea at Helmsdale. The hills on the Caithness border range from 900 ft at the Ord to 1900 ft on Creag Scalabsdale. In the north stand the two Ben Griams each over 1900 ft, on the southern border the land rises from Eldrable hill (1338 ft) at Helmsdale to the shoulder of Ben Armine (2338 ft). The underlying rocks are granite, syenite and gneiss. The surface is for the most part, rough pasture and moorland with small areas of arable land at Kinbrace, Kildonan and Helmsdale where land has been reclaimed. In sheltered parts of the valleys scrub birch with willow are widespread. An interesting alpine flora is to be found on the upper slopes of the Ben Griams, which are topped with old red sandstone debris: Alchemilla alpina, A. filicaulis, Arctous alpinus, Asplenium viride. Cardaminopsis petraea, Carex bigelowii, Cerastium alpinum, Draba incana, Dryas octopetala, Empetrum hermaphroditum Epilobium anagallidifolium, Galium sterneri, Loiseleuria procumbens, Luzula spicata, Polystichum lonchitis, Potentilla crantzii, Salix myrsinites, Saussurea alpina, Saxifraga oppositifolia and Sedum rosea. In waste places round Helmsdale are some plants with restricted distribution in the county: Bromus sterilis, Conium maculatum, Hordeum murinum, Malva sylvestris, Senecio viscosus, Torilis japonica, Veronica hederifolia and on the railway sidings Linaria vulgaris.

Assynt parish lies in the south-west of the county. It is bounded on the west and north by the sea, on the east it is separated from Creich by high mountains, and on the south by rivers and lochs from Ross and Cromarty. Its area is 183 square miles. The greater part of the parish is composed of Lewisian gneiss forming bare rocky knolls with innumerable lochans in the hollows. From the gneiss rise steep Torridonian hills of red sandstone capped with Cambrian quartzite. At Inchnadamph, Elphin and Knockan are limestone plateaux flanked by cliffs. Here are to be found the most interesting plants. Dryas octopetala is widespread and abundant. Asplenium viride, Agropuron donianum, Arenaria norvegica, Carex rupestris, Epipactis atrorubens, Galium sterneri, Polystichum lonchitis, Rubus saxatilis, Sorbus rupicola. Silene acaulis and Thalictrum alpinum occur. On the hills Arctous alpinus, Armeria maritima, Potentilla crantzii, Carex bigelowii, Lycopodium alpinum, L. selago, Salix myrsinites and Saussurea alpina are frequent. In the lochans Nymphaea alba, Lobelia dortmanna, Potamogeton natans, Sparganium angustifolium and Subularia aquatica abound. Trollius europaeus is common in the fields, Vicia orobus on the roadsides. Notable plants on the sea-shore are Mertensia maritima and Sagina saginioides, both rare.

Eddrachillis parish, 226 square miles, is bounded on the west by the Atlantic Ocean, on the east by Durness, south-east by Lairg and Creich, and south by Assynt. The coast, much indented by fiord-like lochs, consists of precipitous cliffs interspersed by sandy and shingle bays. Inland the land is hilly, dissected by glens, and rises to 2980 ft on Foinaven and 2863 on Ben Hee. The rocks are mainly of gneiss, bare and hummocky, red sandstone hills and some limestone. Plants of the sea coast are Silene acaulis, S. maritima, Saxifraga oppositifolia, Sedum anglicum, S. rosea, Plantago maritima, P. coronopus, Armeria maritima, Asplenium marinum, A. adiantum-nigrum, Juniperus communis ssp. nana. Populus tremula and Hedera helix. In lochans are Utricularia minor, U. intermedia, U. neglecta, Sparganium angustifolium, S. minimum, Myriophyllum alterniflorum, Nymphaea alba, Lobelia dortmanna, Subularia aguatica. On the hills Arctous alpinus, Acchemilla alpina, Antennaria dioica, Carex bigelowii, Empetrum hermaphroditum, Loiseleuria procumbens, Lucopodium alpinum, L. selago are common.

**Durness** parish, 234 square miles, occupies the north-western corner of the county. On the north-west and north it is bounded by the Atlantic Ocean, on the east by Tongue and Farr, and on the west by Eddrachillis. It is the most sparsely populated parish in Scotland (2·4 persons per square mile). The coast is mainly of precipitous cliffs. There are two inlets, the shallow

Kyle of Durness and the longer deep-water Loch Eriboll. To the west of the Kyle is the undulating plateau – the Parphe. The rocks here are of Lewisian gneiss and Torridonian sandstone. The surface is covered with deep peat and accordingly the region is bleak moorland and peat bog. Between the Kyle and Loch Eriboll lies a range of hills attaining an elevation of nearly 3000 ft at Foinaven. The western flank of the hills is formed of gneiss and the eastern slopes of Cambrian quartzite, and so their vegetation is scanty. East of Loch Eriboll the rocks are quartzite and schists of the Moine series, resulting in a desolate moorland to the south of which stands Ben Hope (3040 ft). Forming a triangular tract round Durness village and a narrow zone on the south-western shore of Loch Eriboll are limestone rocks giving rise to good pasture land. At Balnakeil Bay there is a stretch of shell sand, which inland forms a machair.

On the cliffs at Cape Wrath and Faraid Head, Silene acaulis and Saxifraga oppositifolia are frequent. Thalictrum alpinum occurs on the shore at Koeldale. On the limestone Dryas octopetala is abundant, Carex rupestris and Epipactis atrorubens scarce. In a bog over-lying limestone near Durness these species flourish: Pinguicula vulgaris, P. lusitanica, Drosera anglica, D. rotundifolia, Carex flacca, C. echinata, C. pulicaris,

Primula scotica and Tofieldia pusilla.

Common on all the hills are Alchemilla alpina, Arctous alpinus, Arctostaphylos uva-ursi, Carex bigelowii, Empetrum nigrum, E. hermaphroditum, Juniperus communis ssp. nana, Loiseleuria procumbens, Lycopodium alpinum, L. selago, Polygonum viviparum, Salix herbacea, Saxifraga stellaris, S. oppositifolia, Saussurea alpina, Sedum rosea, Selaginella selaginoides and Thalictrum alpinum. On the western cliffs of Ben Hope are Cardaminopsis petraea, Draba norvegica, Potentilla crantzii, Salix lapponum, S. reticulata, Pyrola rotundifolia (the only locality in the county) and P. minor. On the summit of Foinaven are Armeria maritima, Cardaminopsis petraea, Cherleria sedoides, Juncus trifidus, Silene acaulis, S. maritima, Luzula spicata, while on Meall Horn to the south Asplenium viride, Draba incana, D. norvegica, Poa glauca, Polystichum lonchitis, Saxifraga nivalis, are found along with other montane plants.

Tongue is bounded on the north by the Atlantic Ocean, on the east and south by Farr, and on the west by Durness. It extends to 136 square miles. The coast consists of precipitous cliffs, some sandy bays and a long shallow inlet, the Kyle of Tongue. To the west of Kyle lies the Moine, an undulating tract of bog and moor in the north of which rises Ben Hutig on which Arctous descends to some 500 ft. On the shores of the Kyle, Tongue woods contain many exotic trees while in the coniferous plantations grow Listera cordata, Goodyera repens and Pyrola minor. The chief river is the Borgie from Loch Loyal. Equisetum telmateia is found on its banks in its upper reaches, the sole locality in v.c. 108. Above Loch Loyal stands the picturesque Ben Loyal. Among the many species are Alchemilla alpina,

Draba incana, Chamaepericlymenum suecicum, Epilobium anagallidifolium, E. alsinifolium, Gnaphalium supinum, Poa glauca, but of special interest is the abundance of Betula nana in a bog between this hill and Ben Heil. On the island off Skerray, at Melness and Coldbackie, Radiola linoides occurs. At Tongue Bay Alchemilla alpina and Oxyria digyna descend to the cliff tops.

Farr, a very large parish of 417 square miles, is bounded on the north by the Atlantic Ocean, on the east by Caithness, on the south by Kildonan, Clyne, Rogart and Lairg, and on the west by Eddrachiles, Durness and Tongue. The coast consists of cliffs and sandy bays. Near the coast there are many bare rocky outcrops. Inland the land is hilly culminating in the south at Ben Klibreck (3154 ft) and in the south-west in Ben Hee (2864 ft). The rocks are mainly schists of the Moine series, granite in Strath Halladale. The parish is for the most part moorland but there is arable land in Strathnaver, Strath Halladale and at Strathy, Kirtomy and Bettyhill. Characteristic plants of the sea-cliffs are: Armeria maritima, Asplenium marinum, Cochlearia officinalis, Ligusticum scoticum, Plantago maritima, P. coronopus, Sagina maritima, Silene maritima, Sedum rosea, Tripleurospermum maritimum and Vicia sylvatica. Plants, unusual in the north are Ononis repens, a rayless form of Senecio jacobaea and Tragopogon minor on the dunes, while in the cultivated fields Centaurea scabiosa, Knautia arvensis, Euphrasia brevipila and its variety reayensis abound. On the machair above Farr Bay are Antennaria dioica, Arabis hirsuta, Botrychium lunaria, Coeloglossum viride, Campanula rotundifolia, Draba incana, Dryas octopetala, Listera ovata, Oxytropis halleri, Pimpinella saxifraga, Polygonum viviparum, Primula veris and Salix repens. On the cliff tops Primula scotica, Scilla verna and Euphrasia marshallii abound. On cliff ledges and screes from Farr to Kirtomy Sagina saginoides is to be found. An area of particular interest is the hill west of the mouth of the Naver. Here Carex maritima and Dryas octopetala are abundant. On the cliff grow Asplenium adiantum-nigrum, A. ruta-muraria, A. trichomanes, Cystopteris fragilis, Epipactis atrorubens, Saxifraga aizoides and S. oppositifolia. On Ben Klibreck, in addition to the common alpine species is the rare Athyrium alpestre. In a bog nearby, the very rare sedge Carex chordorrhiza has its only habitat on the mainland of Great Britain.

# **Botanical Exploration**

Though the County of Sutherland was without roads until the beginning of the nineteenth century, several travellers had already journeyed there and recounted the hardships of travel. Pennant, who with Lightfoot, entered the county at Knockan in 1772 proceeded only a few miles further to Ledmore where he relates 'the way was impassable for horses three miles further on and that even a foot messenger must avoid the hills by crossing an arm of the sea'.

Nevertheless botanical exploration had already begun. J. Robertson (1768) (a pupil of Dr John Hope) discovered Oxytropis halleri at Farr in July in abundance and wrote a detailed description of the plant and its habitat accompanied with an excellent plate. He revisited the area in August to collect seed but was disappointed as only a little was to be found, the scarcity he attributed to the fact that the plants were grazed

by cattle.

About this time also there existed the Hortus Siccus of Dr John Hope (Professor of Botany at Edinburgh) the species in which are listed by I. B. Balfour (1907). These included many plants from Sutherland which had been gathered over a wide area. 'At Dunrobin all along the coast is Saxifraga tridactylites; at Culgower, Ajuga pyramidalis; along the north coast, principally at Farr, Centaurea scabiosa (plentiful), Gymnadenia conopsea (frequent), Oxytropis halleri, Primula scotica and Dryas octopetala; on the north-west coast Draba incana and Scutellaria galericulata (plentiful); Saxifraga oppositifolia on the rocks at the sea-side at Tongue; S. aizoides on all the rivulets in the north; on all the high hills Rubus chamaemorus and Loiseleuria procumbens (plentiful); Arctous alpinus on Ben Griam and several other hills; a Carex (nova species) at the mouth of the Naver and Ulmus in Assynt.'

Thomas Pennant (1774) made a tour of Scotland in 1772 bringing with him the Rev. John Lightfoot who was to collect material for a Flora of Scotland. Lightfoot collaborated with many botanists for his Flora Scotica (1777). Here Dr Hope's Sutherland plants are recorded and in addition Dryas octopetala, Asplenium viride and Polystichum lonchitis

which he had seen in Assynt.

W. J. Hooker (at this time Professor of Botany at Glasgow) along with W. Borrer visited many places in Scotland for material for his *Flora Scotica* (1821), in which special mention is made of some Sutherland plants. Of *Pinguicula lusitanica* he writes 'nowhere have I seen it so plentiful as in Sutherland upon the wet moors adjoining Cape Wrath. *Dryas octopetala* 

is common all along the coast of Sutherland; Oxytropis halleri at the Bay of Farr, Armadale and Invernaver; Primula scotica on pastures by the sea at Bighouse and Armadale Bays; Carex maritima, discovered at the mouth of the Naver by Dr Hope, is on the sands between the Brora and Helmsdale rivers; Draba incana on the heaths on the east coast at Wilkhouse Inn; Mertensia maritima common on the coast of Sutherland'.

On a voyage round the coast of Scotland the Rev. John Fleming (1823) – Professor of Natural History at St Andrews – called at Eriboll and noted Chrysosplenium oppositifolium, Dryas octopetala, Phyllitis scolopendrium and Sedum rosea while at Faraid Head were Coeloglossum viride, Listera ovata, L. cordata and Thalictrum alpinum.

Dr Robert Graham (1826, 1828, 1833) - Professor of Botany at Edinburgh - on three expeditions added considerably to the Flora. In 1825 on the summit of Foinaven were Luzula arcuata, Deschampsia alpina (vivipara) and Cardaminopsis petraea growing on disjointed quartz. More extensive explorations in 1827 and 1833 added Luzula arcuata, Poa alpina and Deschampsia alpina on Ben More Assynt. On Ben Hope, Draba norvegica, Salix reticulata (sparingly), Potentilla crantzii and Minuartia rubella 'of which I found a single plant somewhere on Ben Hope in 1825, but this season (1833) again in tolerable quantity on the point of one cliff.' At Koeldale he noted, 'Dryas octopetala, Thalictrum alpinum, Primula scotica and Glaux maritima growing in contact forming a group which can be seen nowhere else in Britain'; Epipactis atrorubens in abundance at Koeldale and in Assynt on limestone rocks and in the latter place Sorbus aria; Cladium mariscus near Badcall in a marsh, in large quantity but flowering sparingly: Utricularia minor, much less common than U. intermedia, with one colony in flower, in Assynt; Sarothamnus scoparius, common in the east, occurs sparingly in the north in Strathnaver and one patch at Borgie Bridge; *Ulex europaeus*, likewise common in the east occurs all along the north coast.' These expeditions are recalled by J. H. Balfour (1865).

While the previous accounts stressed the rarer species, more comprehensive lists were recorded by H. C. Watson (1832) some ninety species noted round Golspie and (1833) about two hundred and eighty species from Farr, Tongue, Eriboll and the hills Bens Armine, Heil, Loyal and Hope. Rare and local species observed were Fumaria capreolata and Draba incana at Eriboll; Atriplex sabulosa, Conium maculatum and Eupatorium cannabinum at Farr.

In their Guide to the Highlands and Islands of Scotland, G. and P. Anderson (1834) list plants that are to be seen at the various localities which they describe.

Dr A. Murray (1836) of Aberdeen who had accompanied Dr Graham in 1827, produced The Northern Flora wherein are recorded all the known Sutherland plants – six being further records.

In the New Statistical Account of Scotland (1845) many of the Parish



(J, B, Kenworthy)



 $(J. B \ Kenworthy)$ 

 $Plate \ 4 \quad \textbf{Chamaepericlymenum suecicum } Dwarf \ Cornel$ 

accounts give some botanical information. This varies considerably according to the botanical knowledge of the compiler. There is an excellent description of the Flora of Durness by Dr Graham (1845) while in that of the parish of Tongue by H. M. McKenzie (1845) we learn of changes that are taking place. Woods have been planted with ash, beech, elm, lime, plane, larch, spruce and scots pine. Whin and broom he records as introductions. Plants such as Lamium album and Silene vulgaris probably also introduced at this time are not present now. Likewise in the parish of Loth at the Ord (since transferred to Kildonan) D. Ross notes Primula scotica, Mertensia maritima and Vaccinium oxycoccus none of which are present now.

While most botanists confined their attention mainly to flowering plants, W. (1857) in a wide tour of the county listed the vascular cryptogams which he observed, many being additional species. In 1883 the second edition of *Topographical Botany* was published and from this the number of species recorded can be seen (Table 1). It is interesting to note that the mountainous western areas (v.c. 108) had received more attention than the more accessible eastern region (v.c. 107). During the next 20 years all of the several botanists who visited Sutherland added many new records besides extending the distribution of known species.

James Grant of Wick collected extensively around Golspie and in Strath Halladale recording 120 new species (Bennett, 1882, 1889, 1893). Some of the more exciting ones are from the woodlands near Golspie: Goodyera repens, Pyrola minor, Linnaea borealis and Orthilia secunda. At the Mound he noted Catabrosa aquatica and Apium inundatum which were not rediscovered until recently (1962); on the sea-shore Asplenium marinum, Valeriana olitoria and Zostera marina, species now extinct in this area; casual species likewise extinct are Matricaria recutita, Verbascum thapsus and Chenopodium bonus-henricus.

W. F. Miller (1890) collected in the north of Scotland, while at Lairg some forty new species were obtained (Bennett, 1882).

Archibald Gray and L. Whinxman (1888) traversed the county in 1886 from Inverkirkaig in the west to Torrisdale in the north, described the terrain and among their collection were seventy-four species new to v.c. 108 (Bennett, 1889). A most notable discovery was Arenaria norvegica on the hills about Inchnadamph and on river shingle at the low elevation of 400 ft.

The Alpine Botanical Club visited Sutherland about the same time and recorded comprehensive lists (Craig, 1889) of plants from Ben Loyal, Ben Hope, Invershin, Tongue and Farr.

F. J. Hanbury made several excursions to Sutherland with H. E. Fox (1885 and 1886), with E. S. Marshall (Hanbury, 1887 and Marshall, 1891) and with J. Cosmo Melvill (Hanbury, 1889). Many critical species were recorded from Melvich, Bettyhill and Durness. Along with Marshall he first noted in Sutherland the species of *Cochlearia* later named *scotica*. A

special interest of his was the genus *Hieracium* in which he named many new species several of which occur in Sutherland.

The Rev. E. S. Marshall spent a considerable time in the Highlands of Scotland over a long period (1888–1916). His many visits to Sutherland are described (1891, 1901, 1916) and along with W. A. Shoolbred (Marshall, 1897, 1898, 1909). These accounts and his extensive herbarium make a valuable contribution to the Flora of this large county. Like Hanbury he was interested in the genus *Hieracium*.

The northern forms of *Euphrasia* were another of his interests and a new species *E. marshallii* was named in his honour. With W. A. Shoolbred (Marshall, 1897) he discovered *Carex chordorrhiza* in a bog beside Loch Naver – its only locality in Britain.

G. C. Druce the author of several county floras visited Sutherland on many occasions, on three of which he wrote accounts: a visit to the limestone area at Knockan (1895), to Golspie and Invershin (1903) and in the north (1908). On these and later visits he added many additional records.

From Table 1 it will be seen that few additions were made between the appearances of the first (1905) and second (1929) supplements to Topographical Botany. During this period Crampton (1913) contributed an ecological account of the flora on Ben Armine. This contrasts with the more usual lists of species of former papers.

TABLE 1. To show number of species recorded.

		East Sutherland v.c. 107	West Sutherland v.c. 108	County of Sutherland
Topographical Botany	1883	191	307	391
1st Supplement added	1903	255	167	177
Total		446	474	568
2nd Supplement added	1925	33	34	37
Total		479	508	605
Comital Flora	1932	541	613	676
Present	1966	733	773	883

The Comital Flora (Druce, 1932) shows a great increase in the number of species recorded from the second supplement. This is in part due to variation in the concept of the species and to the recording of introduced species as well as further records.

The next account of Sutherland plants was by Wilmott and Campbell (1944) who collected in the hitherto little-worked district round Lochinver. Of the several new records, Catapodium marinum, Diplotaxis muralis, Cephalanthera longifolia, Lythrum salicaria, Oenanthe crocata, Potamogeton berchtoldii and Sisymbrium altissimum have their only Sutherland locations in this area.

In the more recent papers stress is laid on ecological factors. An area modified by blown sands is the plateau to the west of the estuary of the River Naver. This was explored by McVean and Berrie (1952) who recount the flora with special reference to the species of *Empetrum*.

At Inchnadamph, Raven (1952) made a notable re-discovery of the rare Agropyron donianum which species had previously been found by E. S. Marshall but its true identity had not been determined. The rich limestone flora of this area is more fully described by this author (1959).

There are extensive tracts of bog in Sutherland. Pearsall (1956) has described the structure of a blanket bog in the valley of the Strathy river and noted the plants typical of each area.

Foinaven - a mountain in the north-west - was visited by Blake (1959) who described the typical flora to be found in the high exposed ridges composed of Cambrian quartzite and Lewisian gneiss. This consists of Cherleria sedoides, Armeria maritima, Silene acaulis, all cushion plants. along with Cardaminopsis petraea, Salix herbacea, Festuca vivipara and Juncus trifidus.

The rich flora of Ben Hope was examined by Ferriera (1957, 1958, 1959) who showed that the basiphilous species are confined to a narrow band of hornblende schists on the western side of the hill. Elsewhere in the arid rocks of which the mountain is mainly composed, the flora is poor in

species and similar to that found on Ben Loyal.

Of special interest are the discoveries of Ratcliffe on Meall Horn (1958), a mountain in the Reay Forest, where he observed Saxifraga nivalis and on Ben More Assynt (1960), a further locality for Saxifraga nivalis with amongst other species Deschampsia alpina, Draba rupestris, Carex saxatilis, Juncus biglumis, J. castaneus and Poa alpina. In 1962 in the south-east of the county he records Potentilla rupestris - a species not previously noted in Scotland.

During the past decade - as a result of the advent of the Map Scheme the activities of many botanists have added some 200 additional species to the total recorded in the Comital Flora (Table 1).

## Vegetation of Sutherland

Peculiarities of the Sutherland flora associated with individual parishes are mentioned in the relevant section of the flora (p. 13). In this section a synopsis of the general vegetation classification is included because in many cases these vegetation types are widespread and not specifically considered under each parish description. The most comprehensive vegetation classification is that of McVean and Ratcliffe (1962) in Plant Communities of the Scottish Highlands and this account is based largely upon the criteria they accept in their classification. The main feature of their classification system is life-form, ranging from forests through heaths to moss heaths. In most instances this agrees with a classification based upon altitudinal zonation: large trees giving way to heaths at higher altitudes and at the highest altitudes dwarf heaths or mossy heaths. This relationship, of vegetation types having specific altitudinal zones, holds for most of Scotland but in the north and north-west, i.e. Sutherland, these zones are compressed and the general altitudinal limits lowered very considerably. Thus species which normally are confined, in central Scotland, to altitudes above 2000 ft are found at sea-level in Sutherland. Species such as Dryas octopetala, mountain avens, Saxifraga oppositifolia, the purple mountain saxifrage and Empetrum hermaphroditum, are all found within 300 ft of sea-level at Invernaver. Such are the vagaries of climate in Sutherland that only 10 miles away on Ben Loyal the tree line reaches 1000 ft. It is apparent that the life-form of plants in any one area reflects the general environmental status and does not follow a strict altitudinal zonation for this county.

The vegetation of Sutherland can be classified under eight major headings. The most obvious of these being forest and scrub. Natural ashwoods are entirely absent from Sutherland although on some of the base rich soils the ground flora of hazel scrub shows a remarkable similarity with that of ash woods further south. Native pinewood with its ground flora of Vaccinium or Vaccinium plus Calluna is absent from Sutherland although there are pinewoods especially in the south-east of the county which show typical species associated with pinewoods. Steven and Carlisle (1959) comment on the two pinewood sites in Sutherland which might be considered as native. The first, on the islands and shores of Loch Assynt, while on areas which would not be amenable to planting, are of even age, about 100 years old and pine is not mentioned in the area in the statistical accounts. This view is confirmed by John Home's survey of Assynt (1775) in which a very detailed catalogue of all the woods in the parish of Assynt

does not include pine. Secondly in the parish of Creich, on the north of Strath Oykell is a stand over 150 years in age which is considered to be a

survivor of eighteenth-century plantings.

The oak and birch woodlands of Sutherland are very similar in their ground flora and it appears that birch now occupies much of the low-lying valleys previously occupied by oak. Place names may give an indication of former oakwoods: there is a Baddidarach (Gaelic, Darach – oak) both at Lochinver and near Scourie, and there is evidence of oak woodlands along the west coast and in the south east of the county. In the early eighteenth century oak bark was a valuable commodity in the area, priced at £15 per ton from woodland at Creich. Spinningdale oakwood, Creich is now scheduled as a site of scientific interest even though many of the trees appear to be approximately 130 years old (Pennie, 1966). Oak can replace birch as the dominant species up to 500 ft in the west with little or no change in the ground flora. Where oaks do survive, the associated shrub layer of holly, bird cherry and hazel is generally absent and therefore the oak woods in Sutherland do not appear as a distinct vegetation unit.

Of the woodlands to be found in Sutherland, birchwood is the most frequent ranging from the mature woodland of Drumbeg, Assynt to isolated groups of trees on the central plateau. McVean (1964) recognises two woodland types; the Vaccinium-rich birchwoods and the herb-rich birchwoods. The former is recognised by the presence of Vaccinium myrtillus, Pteridium aquilinum and Deschampsia flexuosa; the latter by the presence of Thelypteris oreopteris and a dominance of grass species Anthoxanthum odoratum, Agrostis tenuis. The birchwoods of the north and west have bryophytes as the main component of their ground flora. On low lying glacial drift with deep soils the herb-rich communities dominate the woodland floor, but at higher altitudes, and where boulders form the substrate, there is a luxuriant growth of many moss species. McVean (1964) lists twenty-six species from a birchwood at Loch Stack of which twelve are bryophytes. McVean and Ratcliffe (1962) referring to the same general area record the presence of sixteen tree and herb species and thirty-one bryophyte species. Many of these birchwoods appear moribund, with an even age structure and little sign of regeneration.

Other tree species particularly alder and rowan occur as single species stands though only in small areas and infrequently. Alder woodland in an open moribund state occurs at Loch Choire and McVean and Ratcliffe

suggest this might be a relic of former climatic fluctuation.

Above the treeline and in places of extreme exposure sub-alpine scrub replaces woodland. In Sutherland juniper scrub is found on some islands in lochs as well as exposed situations. The juniper is normally dwarf Juniper, *Juniperus communis ssp. nana*, and is associated with lichens or bryophytes forming specialised communities at sites on Conamheall, Loch Eriboll, Foinaven and Arkle in the Reay Forest, and Farrmheall, Parphe. Mountain willow scrub is infrequent although the *Salix myrsinites* scrub

of Inchnadamph is worth special note, being restricted to limestone pavement. Salix aurita and S. atrocinerea are the common species occurring in isolated patches on rock ledges and are in many cases severely wind pruned, as by the road at Coldbackie.

Dwarf shrub heath is a widespread vegetation type in the county. In a map compiled for Beekeepers by Wittles (1950), 60–70 per cent of Sutherland is shown as areas of dwarf shrub heath and the dominant species of this heath is *Calluna vulgaris*. Much of the heath is anthropogenic in origin, a living monument to man's destructive powers. Dwarf shrubs are usually characteristic of the low alpine zone, but with the retreat of the tree line in Sutherland they have spread to cover large areas.

The dry heather moor centred upon the central highlands of Scotland and dominated by Calluna vulgaris is not extensive in Sutherland. It is found only in the south and east of the county to any great degree and occurs in the north and west only on particularly well drained soils. At low altitudes Erica cinerea, Empetrum nigrum and Arctostaphylos uva-ursi are species commonly associated with Calluna; at high altitudes Vaccinium spp, Empetrum hermaphroditum and Arctous alpinus form associations. In addition at high altitudes Calluna vulgaris becomes dwarfed forming a dense mat of prostrate plants only a few inches in height. In central Scotland this peculiar heath form occurs at elevations above 3000 ft whereas in Sutherland it is found in the Reay Forest at the 1000 ft contour and in the extreme north of Caithness, Dunnet Head, as little as 300 ft above sea level. In general a line drawn south from Whiten Head marks the distributional limits of the lichen-rich dwarf heaths to the east and the Rhacomitrium-rich dwarf heaths to the west. In many areas throughout the north Arctous alpinus and Calluna form an association rich in species.

One dwarf shrub heath of particular interest in Sutherland is the Dryas heath. Although rare and fragmentary in Scotland, Sutherland has some of the finest Dryas heath in Britain. This heath is quite different to those mentioned previously in two important respects. Firstly, Dryas heaths are extremely rich in species; McVean and Ratcliffe (1962) report 215 different species from twenty lists made on Dryas heaths. Secondly, Dryas is found in areas where the calcium content of the soil is high. Whereas most of the Calluna heaths have soil pHs down to 3.5, Dryas heaths are alkaline and have free calcium carbonate in the soil. This situation results from the Durness limestone in the west and from calcareous shell sands along the coast of Sutherland. In Sutherland this heath occurs from sealevel at Invernaver, Bettyhill, to 1700 ft in the foothills of Ben More Assynt; further south in Scotland it reaches 3000 ft in Glen Clova. It is clear that the communities associated with Dryas in the north are quite different from those further south. Using data in addition to those of McVean and Ratcliffe (1962), these Dryas communities can be divided into three distinct types (Kenworthy, 1969); a Dryas-Carex flacca nodum

occurs at low elevations below 300 ft, a *Dryas-Carex rupestris* nodum over a range from 200–2500 ft and a *Dryas-Salix reticulata* nodum at the highest altitudes. Although the *Dryas* communities at Invernaver are very variable and have co-dominants ranging from the dwarf shrubs *Salix repens* and *Empetrum nigrum* to bracken their association of species separates them from the other *Dryas* heaths. It would appear that this association of species dominated by *Dryas* is a unique vegetation unit dependent upon its coastal and altitudinal affinities.

Although Calluna vulgaris is a recurring species in the dwarf shrub heaths of Sutherland it is also a constant feature of many vegetation types which may be classified as wet heaths or blanket bog. Dwarf shrub heaths merge into blanket bogs wherever there is restricted drainage or a water table permanently close to the surface, and this applies to a large part of the area dominated by Calluna. Up to an altitude of 1500 ft Trichophorum-Eriophorum bog is predominant forming a typical 'hummock and hollow' type vegetation in which Sphagnum spp. play an important part in the process of peat accumulation. In these wetter areas Erica tetralix replaces Erica cinerea. Many insectivorous plants, such as Drosera anglica, Pinguicula vulgaris, P. lusitanica and Utricularia minor are found. Above 1500 ft Calluna-Eriophorum bog dominates the landscape and in many cases, north and south of Ben Loyal, by Crask Inn and at Strathy Bog, contains appreciable amounts of Betula nana. Also common are Arctous alpinus and Rubus chamaemorus. Where soils are shallow Trichophorum-Calluna bog is found, especially on ground with slopes over 10°. This vegetation type is species-poor and occurs in the western region, containing a higher proportion of lichens than previous types. There are more subtle variations upon this theme of vegetation based upon stagnant water which are not mentioned here but it is worth pointing out that these vegetation types depend almost entirely upon nutrition from rain water. Where bogs have been affected by fire drying out may take place and lead to the spread of Rhacomitrium. McVean and Ratcliffe (1962) point to an excellent example on the south-east end of Loch Meadie.

Soligenous mires are variants of the wetter moorland types but are grouped together on the criteria of lateral water movement through the soil, tending, in many cases, to give a richer soil and a larger number of species. They are to be found on the lower slopes of hills where lateral drainage is good. Molinia caerulea, Myrica gale and Carex spp. all form mire type vegetation together with Trichophorum, Eriophorum and Calluna. Closely associated with mires are springs and flushes, sites where there is a strong water flow, sufficient to prevent the development of closed vegetation. The moss Cratoneuron commutatum is a distinctive feature of flushes which are calcareous. Large patches of this rusty-golden moss often associated with Saxifraga aizoides can be seen from a distance against the surrounding moorland. Examples occur on the south side of Coldbackie Hill resulting from drainage water from the rich conglomerates. Saxifraga

aizoides also occurs in calcareous flushes with Carex spp. particularly Carex panicea and C. demissa in many parts of Sutherland; Ben Stack, Glendhu, Kylesku, and on the calcareous sands at Bettyhill. In contrast acid flushes give rise to species poor vegetation dominated by Narthecium ossifragum, Sphagnum spp. and the mosses Philonotis fontana and Pohlia gracilis.

Grassland is not extensive in Sutherland except where vegetation has been intensively grazed in the south-east, the west and northern coastal fringe and along the west of the Moine Thrust. In a general sense there are three major types of which the first Agrostis-Festuca grassland, the most widespread, is confined to lower altitudes. This ranges from species-rich communities on soils of high base status to species-poor communities on soils of low base status. The richer types include many herbs and other grasses such as Anthoxanthum odoratum, while at the acidic end of the range the grass Nardus stricta and fewer herbs occur. At high altitudes the Agrostis-Festuca grassland gives way to species-poor grassland dominated by mat grass Nardus stricta which occurs on soils of pH 4·2-5·5. Under wetter conditions Deschampsia caespitosa becomes the dominant grass. Included in this section are montane grass heaths usually found at the highest altitudes, unaffected by the influence of man. In Sutherland these communities are found on the highest hills and are characteristically grass and moss mixtures, or sedges and moss. For example, a widespread type is Nardus-Rhacomitrium on areas with a long snow lie, generally associated with Vaccinium myrtillus, Carex bigelowii and the lichens Cetraria islandica and Cladonia uncialis. Of those montane grass heaths based upon the presence of Juncus trifidus, the Juncus trifidus - Festuca ovina type occupies much of exposed sites on mountains. The summit plateau of Ben Hope has a good example of this vegetation in which Salix herbacea and Alchemilla alpina are constants.

The two remaining units of vegetation are the herb and fern meadow and moss heaths, the latter being only slightly different from the montane grass heaths mentioned previously. Natural herb meadow is rare in Sutherland since grazing is so extensive, but it is recorded from Ben More Assynt and Meall Horn. Of a wide variety of herbs associated with this vegetation Luzula sylvatica, Angelica sylvestris, Geum rivale and Sedum rosea are constant components of the community. This vegetation is found on steep slopes where access to grazing animals is restricted. A dwarf herb meadow is to be found on Ben More Assynt dominated by Alchemilla alpina and Sibbaldia procumbens and containing Silene acaulis, Thymus drucei and Polytrichum alpinum.

In addition to the major vegetation types described by McVean and Ratcliffe maritime and submaritime communities are found along the coasts of Sutherland. These plant communities have been described in some detail by Gimingham (1964). Sutherland has a very extensive coastline including cliffs, shingle, sandy foreshores, dunes and saltmarsh. In these habitats sodium chloride from seawater or salt spray has a dominating

effect upon the vegetation, except in certain dune systems where calcium carbonate from shell sand seems to be an overriding feature of the environment. Exposed cliffs harbour a large variety of lichens and dense swards of Plantago maritima or Armeria maritima. Also Tripleurospermum maritimum and Liquiticum scoticum are prominent species along the cliffs. On the cliff tops a grassland dominated by Festuca rubra is found sometimes associated with Salix repens, Empetrum nigrum or other prostrate shrubs where soil conditions are a little more acid. Many cliffs in northern Sutherland have both Primula scotica and Scilla verna as components of their vegetation. Where colonies of birds disturb the cliff top vegetation the area may be invaded by ruderal species. Shingle beaches are not extensive in Sutherland; Mertensia maritima being a most spectacular species associated with such areas. Foreshore plants seldom if ever occur in densities sufficient to produce a closed community, especially on the northern exposed beaches where communities containing Salsola kali, Cakile maritima, Atriplex hastata and other Atriplex spp. are reduced to a single representative, Honkenua peploides as on exposed beaches at Bettvhill.

Sand dunes are perhaps the most obvious feature of coastal vegetation. Due to their continuous state of flux they represent a range of habitats too large to be discussed here. However, the 'species richness' of a sand dune system depends to a large extent upon the chemical composition of the underlying sand. Sand derived from shell fragments has two effects. This more alkaline sand allows invasion by a wider spectrum of species and secondly the influence of such sand spreads further inland giving a greater area for colonisation. Whatever the nutrient status of the sand, Marram grass, Ammophila arenaria, is the dominant species in the first phases of dune formation giving rise to dune pasture and/or dune heath of some description. Due to high winds in this area most of the dune systems are in a clearly dynamic state. There are few good salt marshes in Sutherland. They are found as isolated patches at the head of the Kyles or sea lochs. Characteristic species are Armeria maritima, Glaux maritima, Puccinellia maritima and Plantago maritima: Cochlearia officinalis occurs sporadically but is important in many communities.

## Notes on the Fungal Flora of Sutherland

by Roy Watling, Royal Botanic Gardens, Edinburgh

The fungal flora of Sutherland is poorly known, there being few published records (see Mycologia scotica, Rev. J. Stevenson, 1879) until Dennis reported on the larger fungi of the north-west Highlands of Scotland (Kew Bulletin, 1955). Dennis' paper compiles his records from Tongue and adjacent areas and with a few collections made by Henderson in the south-west corner of the county; little more was added until recently when collecting and recording has been extended along the line Cape Wrath/Duncansby Head by Watling. Sutherland is of considerable interest to the mycologist for within its boundaries one can study the fungi of northern examples of British Highland birchwood and herbaceous communities on acidic and limestone outcrops. Bettyhill is an extremely fine centre for the study of the higher fungi, particularly with its close proximity to the Strathnaver area.

The list of fungi recorded for Sutherland is in some ways little different from that of areas further south, mainly because it includes a large number of species which have been recorded by virtue of their association with the numerous plantings of 'alien' trees. It is the details of the species list and their interpretation which are of the greatest interest. However, the introduced fungal flora can indicate trends and in some cases is of particular merit. Thus Borgie forest although being a fairly mature forest is of known and comparatively recent age and therefore most if not all the members of the rich fungal flora (over 100 species can be collected within the space of a 2 hour period) have colonised since that date. The woods about Tongue House and similar established properties have even richer floras reflecting the diversity of substrata available for colonisation.

In contrast the moorlands offer very little, the dominant species being Omphalina ericetorum; the active Sphagnum areas, however, are colonised by a rather specialised and characteristic group of about a dozen species of agaric, the three most common being Galerina paludosa, G. sphagnorum and Hypholoma elongatum. The moorlands, where dissected by small wooded gulleys, are enriched by agarics suspected as mycorrhizal with the birches, e.g. Russula spp. The formerly much wider distribution of this woodland is indicated by the occurrence of agarics such as Nolanea cetrata and Galerina spp. on the slopes of Ben Loyal and neighbouring highlands. On the summits Omphalina luteovitellina has been recorded, a typical mountain fungus associated with the lichen Botrydina vulgaris.

The coastal sand-dunes offer a whole range of very characteristic species

including Conocybe dunensis (dune brown cone-cap), Psathyrella ammophila (dune brittle-cap) and Hygrophorus conicoides. Less common species have also been collected associated with the organic crusts and Collema spp. found amongst the Ammophila plants. Undoubtedly in certain areas of the dunes as in other communities mammal dung modifies the fungal flora, i.e. colonisation by Stropharia semiglobata, Panaeolus semiovatus, etc. The coastal grasslands particularly on fixed sand are characterised by several edible species of Agaricus including species clearly related to both the field and horse mushrooms and by the equally edible large puff balls, e.g. Calvatia utriformis.

Where the latter grasslands extend to the cliff tops Salix repens invades the turf and although parallel communities are found in many other areas those in Sutherland are particularly rich. These communities within easy reach of Bettyhill, particularly Farr Bay, have been intensively collected over several weeks for several seasons. They are typified by Russula spp. (R. persicina, R. fragilis) and Lactarius spp. (L. lacunarum, L. hysginus) Leccinum salicola, Cortinarius pseudosalor agg., Amanita spp. (A. rubescens, undescribed species) etc. a mycorrhizal group of larger fungi and a probably saprophytic group including Cantharellus cibarius, a phenomenon just as one experiences in a 'normal' woodland. Grassland fungi are also intermixed in the community, e.g. Marasmius oreades (fairy ring champignon), Calocybe carnea and Entoloma madidum.

Undoubtedly the most interesting communities of all in Sutherland are

those in the Strathnaver reserve. With its vast assemblage of flowering plants, a parallel and equally unique assemblage of higher fungi is found. Boletus luridus is a constant member of the Dryas/Salix repens nodum whereas it normally is associated elsewhere in Britain with oak woodland on base rich soils. The genera Hebeloma and Inocybe are represented by a vast assemblage of species, many of which have still to be determined because of the complexities of taxonomy; however, they are an important integral part of the flora. Even where only a few remaining plants exist the former presence of birch wood on the northern parts of the reserve is reflected by the sudden appearance in the area of woodland fungi, e.g. Lactarius torminosus. The Salix repens communities at Bettyhill are under careful observation by Watling and are being compared with similar

will be published in the near future.

The grassland communities are frequently on acidic substrates and are fairly heavily grazed. Under these conditions the *Hygrophoraceae* play a less important part among the fruiting flora than in base-rich grasslands and are replaced by *Rhodocybe popinalis*, *Entoloma prunuloides* and *E. radiatum* and *Lycoperdon foetidum* (puff ball). In areas of high activity of sea birds the fungal flora is very depauperate resembling in constituents the area adjacent to zooplethismic grasslands on St Kilda.

communities at Kindrogan, Perthshire, and on Hirta in the St Kilda group. Very close parallelisms have been demonstrated and it is hoped this work

#### The Influence of Man in Sutherland

The more one examines evidence from Sutherland the more it becomes apparent that Fraser Darling and Morton Boyd in Natural History of the Highlands and Islands (1964) are wrong in their assertion that 'it is possible that such areas as West Sutherland and the North West corner of Ross-shire did not know man until two or three thousand years ago'. If we accept the evidence of Callander, Cree and Ritchie (1927) that the bone caves at Allt nan Uamh had human occupants prior to the final valley glaciation it is evident that man was in this area eight to ten thousand years ago. Bones of Arctic animals were found, split for the extraction of marrow, sawn antlers of reindeer, stones burned by a fire and charcoal. No traces of domestic animals were found and it appears that man's first excursion into Sutherland was as Neolithic man, the hunter.

With an improving climate there is evidence of domesticated animals in the Neolithic chambered cairn at Embo excavated in 1960 (Henshall, 1965) where the bones of pig, sheep and small ox were found. This invasion by Mediterranean man brought with it from the 'golden crescent' of Europe cultivated crops and a more permanent culture. Several factors influenced the settlement pattern in the area. Firstly, accessibility is important and even a cursory examination shows the settlement patterns of many ages to stem largely from the coast following the sheltered straths, with their glacial soils, or to be confined to areas with an adequately amenable geology, for example, sandstones and limestones, which are easily weathered.

Little is known of these stone age peoples who buried their dead in chambered cairns. Most cairns have been pillaged in the past and little evidence of the culture remains. Neolithic peoples were gradually replaced by 'Beaker People' who buried their dead in short 'cists' or stone coffins. These coffins contained a food vessel or beaker in which have been found early cultivars. Hut circles, the remains of dwellings, seem to be the home of such people and of later bronze age settlers. That changes in the vegetation of Sutherland occurred during this period is evident from pollen analysis of deep peats and the remains of plants and animals associated with chambered cairns. Both the stumps of pine found in peat and bones of capercallie associated with cairns indicate extensive coniferous forests. Removal of the forest is evident from charcoal remains of conifers, hazel and birch together with small amounts of grain suggesting a primitive cultivation of cleared ground.

Very little is known of the bronze age peoples and their effects upon

vegetation in Sutherland. It is known that these peoples who lived in an age of standing stones and circles did have at least one distinction, they cremated their dead and this at least suggests that they had some reverence for fire and that they used it extensively. Thus the process of removal of woodland may have continued in this period although there is little evidence to suggest that in Sutherland the bronze age culture was more extensive in its influence than previous cultures. It is also apparent that the tools of the early Neolithic peoples were quite effective in clearing woodland, as demonstrated in modern times in Denmark. There three men cleared 600 square yards of silver birch forest in 4 hours with an authentic axe head which had not been sharpened for four thousand years, demonstrating the potential influence of early man on forests.

Approximately 400 B.C. marks the beginning of the iron age. Lasting for some 500 years, this period includes the appearance of hill forts and the less explicit brochs. The latter, round double-walled towers up to 40 ft in height were places of refuge but there still remains much speculation about these structures. 67 brochs are listed for Sutherland but others, how many no one can guess, must have been destroyed with the passage of time. These people, the 'Caereni' of Ptolemy's map, were recognised by the Romans as a pastoral race and such observations are borne out by the presence of ox, sheep, goat and pig bones found associated with the remains of this civilisation. There is also evidence at this time of large herds of red deer. Iron used by these people required smelting and in turn required the destruction of forest, especially oak and birch. Heaps of slag indicating sites of early iron workings have been found in the immediate vicinity of two brochs at Shinness, Lairg.

Thus industry, albeit on a small scale, introduced a new factor in the destruction of forest. By this time the climate had changed to such an extent that the forests of Britain were in decline and in most parts of Sutherland removal of trees would be rapidly followed by the encroachment of moorland. Man was using a resource which would not replace itself. The scale of such impact is difficult to judge since, unlike other parts of Britain, the written history of Sutherland is particularly sparse until the seventeenth century. An inventory of ancient monuments (H.M.S.O., 1910) lists: a heap of iron slag 30 ft across and 4 ft in height near Achinduich, Lairg; heaps of slag at Kinbrace, Loch Shin; and iron slag, burnt wood plus charcoal 2½ in. thick at Skelpick, Bettyhill. Timothy Pont's map of Strath Navernia (1633) has the legend 'Heir is yron oare' on the west of Strathnaver and at the south end of Ben Stumanadh. 'Loch Isyre or ye wrights loch' refers on this map to Loch Syre. Gordon (1812) in a work written in 1630 makes reference to the inhabitants of Sutherland who 'made' iron from iron ore. Sinclair, in the first Statistical Account (1793), states of Assynt that 'Iron mines were dug here of old . . . in different places in this parish'. He also suggests that this was before the Scandinavian invasions (c. A.D. 850). The hill above Kirkton Farm, Golspie, is also referred to as the 'Iron Hill'. Thus from Assynt, to Strathnaver, to the east coast there is evidence of early iron workings and the destruction of forests.

Later wood was used in kilns in the production of limestone. In the west, particularly Assynt, there is documented evidence of tree felling for this purpose whereas further east where trees by this time were scarce peat was used in the kilns as at Strathy. Corn drying kilns are to be found in many of the pre-clearance villages and good examples are still to be found at Gruain Mor, Loch Naver and Rossal, Strathnaver. It is not clear whether peat or timber was used in those kilns but presumably where timber was available it was used. However, it can be assumed that over the past two thousand years timber of any size was becoming difficult to obtain. There is little evidence from peat profiles of pine in this period and roof timbers of 'bog oak' (pine) were highly sought after by the preclearance peoples in many parts of Sutherland. Apparently timbers lying in the peat could be recognised on frosty mornings by the differential frost patterns they formed.

So far emphasis has been put upon man's increasing activity in destroying woodland and the parallel deteriorating climate. But man's secondary effect is associated with his pastoral and agricultural activities. The latter were very much limited to the immediate surroundings of the village and can be seen in the excellent examples of lazy beds at Rossal and other preclearance villages. Grazing animals, especially sheep, goats and deer are known to suppress the regeneration of natural forest and any extension of their numbers by pastoral activities will cause a decrease in tree cover in the area. The first threat of destruction to forests was from Neolithic peoples who turned from hunting to domestication of grazing animals. There has been a general pattern of change throughout Europe which was undoubtedly followed in Sutherland. Closed forest with deer and swine gave rise to an open forest with fewer swine, and deer and cattle increase. This finally led to the virtual absence of trees and a predominance of sheep, goats and to a lesser extent, cattle.

While the grazing associated with pre-clearance villages was undoubtedly of some considerable extent it did include a variety of grazing animals, deer, cattle, 'kerry' sheep, goats and horses. Sinclair (1793) noted that in Rogart 'Some wretched vestiges of very considerable birchwoods are to be seen in different parts; but the shoots from such of the old stocks as have not decayed are annually cropped by cattle in the autumn and winter; and such shoots as may survive to a second summer are sure to be cut by the people to bind their cattle'. So the 'Caereni' or pre-clearance peoples for thousands of years would have had some adverse effects upon birch regeneration.

John Prebble in *The Highland Clearances* (1963) tells the fascinating story of the change in land management throughout Sutherland in early years of the eighteen hundreds and its disastrous sociological effects.

Whereas previously 'kerry' sheep and cattle were kept for a local market the introduction of the long faced voracious Cheviot sheep meant an export of mutton and wool to the south. Land which produced 2d. per acre under cattle now produced twelve times that amount under sheep. Over a period of 50 years the number of sheep in Sutherland built up to about 200,000 in 1857, remaining at approximately the same figure subsequently. Thus the effect of sheep over the past 100 years has been a predominant one.

That sheep farming has affected vegetation is clear from several points of view. These hardy sheep graze on the wet moorlands which cover a large part of Sutherland and in order to maintain new growth the areas are burnt. Fire reduces the possibility of natural tree regeneration. Where fire and sheep are absent as on islands in lochs (Cam Loch, Ledmore, Loch Beannach, Assynt, Loch Meadie and Loch Syre are good examples) rowan, birch and in some places oak and pine are present. This is also true of steep rock faces. In addition Pennie (1966) examined the age structure of birch woods in Strath Carnaig, which became part of the Torboll farm grazings in 1812. These birch woods are ageing, with no regeneration. The trees are no younger than 40 years and most are 80 to more than 110 years old. Grazing clearly causes a suppression of tree regeneration. He also quotes the effects of sheep fencing on the shores of Loch Choire where natural regeneration has occurred within the fenced areas.

Clearly man has influenced the vegetation of Sutherland both directly and indirectly over a period of perhaps 5000 years. Apart from the planting in the eighteenth century the present day plantings by the Forestry Commission are the first signs of man's attempts to replace some of the tree cover he has helped to remove.

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## County Flora

The sequence of genera and the nomenclature of the species are as in the List of British Vascular Plants (Dandy, 1958). The species name is followed by the vice-county number or numbers in which the species has been recorded. The common name follows that in the most recent publication on the subject English Names of Wild Flowers (Dony, Perring and Rob, 1974) a B.S.B.I. publication. Where an English common name is not common to Scotland the appropriate Scottish common name is given together with that recommended by the B.S.B.I. An obvious example is that of Harebell and Bluebell. All common names are to be found in Flora of the British Isles (Clapham, Tutin and Warburg, 1962). The next line gives the general habitat and the frequency of occurrence which is stated under:

The distribution is indicated by mentioning the name of every district in which the species has been observed. The districts in the upper line are those in v.c. 107, those in the lower line of v.c. 108. As an example, when a species has been recorded from every district, its distribution is indicated thus:

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

When a species has not so far been recorded from a district, the name of that district is replaced by an ——, thus:

	 	DORNOCH		 	KILDONAN
ASSYNT			TONGUE		

No further details of distribution are given except in the case of species of restricted distribution. For these the localities in which they have been

observed are indicated along with the date and collector's name. In such genera as *Hieracium* and *Rubus* where there are a large number of species, each with a very limited distribution, only those districts with localities where that particular species has been recorded are mentioned, thus:

Hieracium anglicum Fries (107, 108)

Dornoch (Cambusmore)

Assynt (Knockan, Inchnadamph)

Casual and introduced species of limited distribution are treated likewise.

# **PTERIDOPHYTA**

LYCOPODIACEAE

Lycopodium L.

L. selago L. (107, 108) Fir Clubmoss

On moors, heaths and rocky places on hills. Common in the north and west. Descends to sea level on the north coast.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# L. inundatum L. (108) Marsh Clubmoss

In a bog. Very rare.

Assynt (Canisp, 1903, G.C.D.) No recent record

L. annotinum L. (107) Interrupted Clubmoss

Stony places on hills. Very rare.

Creich (Oykell Bridge, 1833, W.A.S.)

Lairg (Ben Hee, 1960, I.H.)

L. clavatum L. (107, 108) Stag's-horn or Common Clubmoss

On moors and heaths. Frequent.

ASSYNT — DURNESS TONGUE —

KILDONAN

L. alpinum L. (107, 108) Alpine Clubmoss

On mountain moorlands. Frequent, mainly on western hills.

CREICH LAIRG ROGART — LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## **SELAGINELLACEAE**

Selaginella Beauv.

S. selaginoides (L.) Link. (107, 108) Lesser Clubmoss

Damp mossy slopes and rock-ledges. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## **ISOETACEAE**

Isoetes L.

I. lacustris L. (107, 108) Common Quillwort

In lochans. Occasional.  CREICH — — — — — — — — — — — — — — — — — — —	rumbeg)	FARR		KILDONAN
I. echinospora Durieu (108) Spr In lochans. Rare.	ing Quillwort			
ASSYNT  Assynt (Stoer, Ullapool)  Tongue (Talmine, Modsarie)  Farr (Syre)	TONGUE	FARR		
<b>EQUISETACEAE</b> Equisetum L.				
E. hyemale L. (107, 108) Rough Wet places on hills. Very rare.	Horsetail or	Dutch F	Lush	KILDONAN
ASSYNT — DURN Kildonan (Loch na Clar, 1964, A Assynt (Achmore, 1886, A.G.) Durness (Ben Hope, 1958, at 13	·	7.)		
E. variegatum Schleich ex Webe Horsetail	er & Mohr (10	7, 108)	Variegat	ed
Wet banks on hills. Very rare.				
ASSYNT —				
Creich (Ben More Assynt, 1969,	U.K.D.)			
Assynt (Inchnadamph, 1909, E.		er, 1944,	A.J.W	.)
E. fluviatile L. (107, 108) Water In lochs, ponds and ditches. Cor CREICH LAIRG ROGART DORN ASSYNT EDDRACHILLIS DURN	mmon.	CLYNE FARR	LOTH	KILDONAN
E. palustre L. (107, 108) Marsh In marshes and bogs. Common.				
CREICH LAIRG ROGART DORN ASSYNT EDDRACHILLIS DURN	OCH GOLSPIE ESS TONGUE	CLYNE FARR	LOTH	KILDONAN
E. sylvaticum L. (107, 108) Woo	od Horsetail			

Wet woo	odlands, banks ar LAIRG ROGART EDDRACHILLIS	nd sandy p DORNOCH DURNESS	GOLSPIE	quent. CLYNE FARR	LOTH	KILDONAN
	nse Ehrh. (107, 10 sy banks. Rare.	08) Shady	Horsetail			
ASSYNT	LAIRG ROGART	DURNESS		CLYNE		
Rogart (	Lairg, 1857, W.) Tressady, 1957, I Brora, 1957, M.M	M.McC.W.	)			
	Drumbeg) (Ben Hope, 1970	, R.W.M.	7.)			
	se L. (107, 108) l laces, fields, road			amon.		
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
	rale Kühlew ex R Brora, M.McC.W.					
	teia Ehrh. (107, I		Horsetail	OL WATE		
Clyne ( E	ROGART Tressady, 1957, M.M. Brora, 1957, M.M. (Borgie, 1959, B.	cC.W.	TONGUE	CLYNE		
_	SMUNDACEAI smunda L.	E				
	s L. (107, 108) R laces in the north		. Occasions	al. 		
ASSYNT Lairg (I	EDDRACHILLIS Loch na-Caillach,	DURNESS $1870, F.S.$				
	YMENOPHYL Iymenophyllum S					
Wet rock	nii Hook. (107, 10 ks and woods in t			ern		
CREICH ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		

#### **DENNSTAEDTIACEAE**

Pteridium Scop.

P. aquilinum (L.) Kühn (107, 108) Bracken

Woods, banks, heaths and moors. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### ADIANTACEAE

Cryptogramma R. Br.

C. crispa (L.) R. Br. ex Hook (108) Parsley Fern Rocky places. Very rare.

FARR

Farr (Ben Klibreck, 1956, E.F.W.)

#### BLECHNACEAE

Blechnum L.

B. spicant (L.) Roth (107, 108) Hard-fern

Woods, banks and rocky places on moors. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### ASPLENIACEAE

Phyllitis Hill

P. scolopendrium (L.) Newm. (107, 108) Hart's-tongue

Shady rock crevices. Occasional in the north and west, very rare in the east.

\_\_\_\_ DORNOCH \_\_\_\_

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

Dornoch (Cambusmore, 1962, A.McG.S.)

## Asplenium L.

A. adiantum-nigrum L. (107, 108) Black Spleenwort

Rocky places, banks and walls. Frequent.

— LAIRG — GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

A. marinum L. (107, 108) Sea Spleenwort

Sea-cliffs and caves on north and west coasts. Occasional. Extinct in east.

			GOLSPIE		<del></del>	
	EDDRACHILLIS (Strathsteven, 1886)	DURNESS 8, J.G., 189		FARR		
	omanes L. (107, 1 evices and walls.				in the	east.
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	e Huds. (107, 108 basic rocks. Occa		leenwort			
CREICH						
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	muraria L. (107,					
Walls ar	nd basic rocks. O	ccasional ii	n the nort	h and w	est, rare	in east.
		DORNOCH	GOLSPIE			
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	ATHYRIACEAI Athyrium Roth	E				
	femina (L.) Roth woods and banks.		Lady Fe	rn		
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	tre (Hoppe) Ryla in screes. Rare.	ands (107,	108) Alpir	ne Lady	Fern	
				FARR		
	Ben More Assynt Ben Klibreck, 1887		S.M. & F.	J.H.)		
C	ystopteris Bernh.					
Basic ro	is (L.) Bernh. (10 ocks and walls. Fr	requent.		der-fern		
CREICH		DORNOCH	GOLSPIE		LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
_	ASPIDIACEAE Oryopteris Adans					

D. filix-mas (L.) Schott (107, 108) Male Fern

Woods and shady places. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR D. borreri Newm. (107, 108) Scaly or Golden-scaled Male Fern Damp shady places in woods and amongst rocks. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE D. abbreviata (DC) Newm. (107, 108) Small Male Fern Rocky places on hills. Rare. CREICH ----ASSYNT EDDRACHILLIS FARR D. lanceolatocristata (Hoffm.) Alston (108) Narrow Buckler-fern Moist woodlands. Occasional. ASSYNT EDDRACHILLIS DURNESS TONGUE FARR D. dilatata (Hoffm.) A. Gray (107, 108) Broad Buckler-fern Shady places in woods and heaths. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR D. aemula (Ait.) Kuntze (108) Hay-scented Buckler-fern On rocks in Birchwoods. Very rare. EDDRACHILLIS DURNESS -Eddrachillis (Loch Stack, 1963, D.A.R.) Durness (Loch Eriboll, 1965, D.McC.) D. assimilis S. Walker (107, 108) On cliffs. Very rare. CREICH ----ASSYNT EDDRACHILLIS DURNESS ---Creich (Ben More Assynt, 1890, F.J.H., 1891, E.S.M.) Assynt (Achmelvich, 1955, J.A.) Eddrachillis (Ben Stack, 1967, A.G.K.) Durness (Ben Hope, 1966, A.G.K.: Foinaven, 1967, A.G.K.: Carnstackie,

## Polystichum Roth

1967, A.G.K.: Loch Eriboll, 1967, D.McC.)

P. aculeatum (L.) Roth (107, 108) Hard Shield-fern Shady places amongst rocks and in woods. Occasional.

ASSYNT	EDDRACHILLIS	DORNOCH DURNESS		FARR		KILDONAN
	itis (L.) Roth (10 in basic rocks. O		on limestor	ne rocks.	•	KILDONAN
	HELYPTERID					
Moist pla	teris (Ehrh.) Sloss aces on heaths, be LAIRG ROGART EDDRACHILLIS	anks and r	nountains. GOLSPIE	Commo	n, wides	
	pteris (L.) Slosson cks and in woods ———————————————————————————————————		in north a			east. KILDONAN
Screes at	teris (L.) Slosson nd rocks on hills a ————— EDDRACHILLIS	and woods DORNOCH	. Occasion	al. CLYNE	LOTH	KILDONAN
Limestor ASSYNT	tiana (Hoffm.) Slone screes. Rare.  ———————————————————————————————————		Limeston	e Fern		
	OLYPODIACE olypodium L.	AE				
P. vulgare L. (107, 108) Polypody Woods, banks and walls. Common, widespread. sub sp. vulgare						
CREICH ASSYNT	EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
sub sp. j	prionodes Rothm.  EDDRACHILLIS		TONGUE	——FARR		KILDONAN

#### MARSILEACEAE

Pilularia L.

P. globulifera L. (107) Pillwort

Creich (Invershin, 1834, R.G., Plentiful, 1840, W.H.C., Shin Bridge, 1893, A.B.)

Now extinct.

#### **OPHIOGLOSSACEAE**

Botrychium Sw.

B. lunaria (L.) Sw. (107, 108) Moonwort

Pastures, dunes and moors. Frequent.

DORNOCH GOLSPIE ASSYNT EDDRACHILLIS

DURNESS TONGUE FARR

KILDONAN

#### Ophioglossum L.

0. vulgatum L. (108) Adder's-tongue

Grassy places. Rare.

ASSYNT EDDRACHILLIS DURNESS ·

#### SPERMATOPHYTA

GYMNOSPERMAE

PINACEAE

Pinus L.

P. sylvestris L. (107, 108) Scots Pine

Widely planted throughout the county.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### CUPRESSACEAE

Juniperus L.

J. communis L. (107, 108) Juniper

On heaths, dunes, moors, sea-cliffs, mountain rocks and woods. Common. Very variable from gnarled prostrate plants to shrubs

4 ft high.

Includes

sub sp. communis, sub sp. nana and intermediate forms.

CREICH LATEG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR ANGIOSPERMAE DICOTYLEDONES RANUNCULACEAE Caltha L.

C. palustris L. (107, 108) Marsh Marigold

Marshes, ditches and banks of streams. Ascends to 2500 ft on Ben More. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

sub sp. palustris. The Commoner form.

sub sp. minor (Mill.) Clapham. Frequent in the north and on hills.

#### Trollius L.

T. europaeus L. (107, 108) Globe-flower

In damp pastures, fields and mountains. Common at sea-level in the north and west.

CREICH LAIRG ROGART —— CLYNE —— KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### Anemone L.

A. nemorosa L. (107, 108) Wood Anemone

Woodlands. Frequent in the south-east, local elsewhere.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS — TONGUE FARR

#### Ranunculus L.

R. acris L. (107, 108) Meadow Buttercup

Meadows, fields and roadsides. Common, widespread. Ascends to 2500 ft.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS — TONGUE FARR

R. repens L. (107, 108) Creeping Buttercup

Fields and waste places. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

R. bulbosus L. (107, 108) Bulbous Buttercup

Dry grassland and dunes. Occasional in sandy coastal areas in the east and north.

CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN		
Woodland CREICH ————————————————————————————————————	omus L. (107) Gods. Very rare.  ———————————————————————————————————	 J.A.)		CLYNE				
	nula L. (107, 108 , ditches and lock LAIRG ROGART EDDRACHILLIS	-	non, wides GOLSPIE	pread. CLYNE FARR	LOTH	KILDONAN		
Muddy 1	catus L. (107) Cel bank of stream. V ————————————————————————————————————	ory rare.	_	—— ——		_		
	aceus L. (107, 10 banks of ditches, ————————————————————————————————————		quent.	OOT CLYNE FARR	LOTH	KILDONAN		
sub sp. d	R. trichophyllus Chaix (108) Thread-leaved Water-crowfoot sub sp. drouetii (Godr) Clapham Lochans. Rare.							
ASSYNT		DURNESS	TONGUE	FARR				
R. aquat	ilis L. (108) Com . Rare.	mon Water	r-crowfoot					
Durness Farr (M	(Durness)	DURNESS		FARR				
sub sp. f	R. ficaria L. (107, 108) Lesser Celandine sub sp. ficaria Woods and shady banks. Frequent.							
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN		



 $(J.\ B.\ Kenworthy)$ 

 $Plate\ 5$  Rubus chamaemorus Cloudberry



#### Thalictrum L.

T. alpinum L. (107, 108) Alpine Meadow-rue

Rocky slopes on hills. Frequent on western hills. At sea-level on north coast.

CREICH LAIRG ROGART --- KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

T. minus L. (107, 108) Lesser Meadow-rue

On coastal dunes and limestone rocks. Frequent.

DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

sub sp. montanum Wallr. On limestone rocks.

Durness (Durness, 1897, E.S.M., 1950, J.A.)

Tongue (Melness, 1900, E.S.M.)

sub sp. arenarium (Butcher) Clapham. On coastal dunes.

## BERBERIDACEAE

Berberis L.

B. vulgaris L. (108) Barberry

Woods, Introduced.

Tongue (Tongue).

### NYMPHAEACEAE

Nymphaea L.

N. alba L. (107, 108) White Water-lily

In lochs and lochans. Frequent in the north and west, local in east.

CREICH LAIRG ROGART — GOLSPIE CLYNE — KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARE

Nuphar Sm.

N. pumila (Timm) DC. (107) Least Water-lily

In a lochan. Very rare.

Rogart (Little Rogart, 1960, M.McC.W. Only locality)

## **PAPAVERACEAE**

Papaver L.

P. rhoeas L. (108) Common or Field Poppy

On railway track. Casual. Very rare.

Farr (Forsinard)

P. dubium L. (107, 108) Long-headed Poppy Roadsides and fields. Occasional in the east, rare in north.
— DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR
P. somniferum L. (107) Opium Poppy Garden Escape. CREICH KILDONAN
Creich (Bonar Bridge) Kildonan (Kildonan)
Meconopsis Vig.
M. cambrica (L.) Vig. (107, 108) Welsh Poppy Introduced. CREICH — — — — — — — — — — — — — — — — — — —
Chelidonium L.
C. majus L. (107) Greater Celandine Introduced. Kildonan (Kildonan)
FUMARIACE AE Corydalis Medic.
C. claviculata (L.) DC. (107, 108) Climbing Corydalis or White Climbing Fumitory Amongst rocks in woods and scrub. Occasional.
ASSYNT — DURNESS TONGUE FARR  Golspie (Morvich) Clyne (Gordonbush, Strath Brora) Kildonan (Helmsdale) Assynt (Elphin, Beannach) Tongue (Rhi-Tongue) Farr (Grumore)

Fumaria L.

F. capreolata L. (108) White Ramping Fumitory

Fields. Very rare.
Eddrachillis (Kinlochbervie) Durness (Eriboll)
F. bastardii Bor. (107, 108) Tall Ramping Fumitory In cultivated fields. Very rare.
ASSYNT — GOLSPIE
F. muralis Sond. ex Koch (108) Common Ramping Fumitory sub sp. boraei (Jord.) Pugsl. Fields. Rare
Tongue (Tongue) Farr (Bettyhill)
F. officinalis L. (107, 108) Common Fumitory Fields and waste places. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR
CRUCIFERAE Brassica L.
B. napus L. (107, 108) Rape Fields. Introduced. Frequent in east, rare in west.  CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT — FARR
B. rapa L. (108) Wild Turnip Fields. Introduced. Assynt (Lochinver)
Sinapis L.
S. arvensis L. (107, 108) Charlock Fields. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

S. alba L. (107, 108) White Mustard

Eiglde Testers described Described					
Fields. Introduced. Rare.		GOLSPIE			
		TONGUE	FARR		
Creich (Invershin)		10110012	2 221414		
Golspie (Golspie)					
Tongue (Tongue)					
Farr (Bettyhill)					
Diplotaxis DC.					
<b>D.</b> muralis (L.) DC. (108)	Annual W	all-rocket	;		
Casual. Very rare.					
$Assynt\ (Lochinver)$					
Raphanus L.					
R. raphanistrum L. var. a Cultivated fields. Frequen CREICH LAIRG ROGART ASSYNT EDDRACHILLIS		GOLSPIE	•	Vild Rac	dish KILDONAN
Crambe L.					
C. maritima L. (107) Sea I On foreshore at Dunrobin with the note that it may on the beach.	Gardens. 1				
Cakile Mill.					
C. maritima Scop. (107, 10 On sandy seashore. Occasi		cket			
•	DORNOCH	COLSPIE	CLYNE	LOTH	KILDONAN
	DURNESS		FARR	LOIN	RIEDONAN
Lepidium L.					
L. heterophyllum Benth (2) Smith's Cress	L. smithii I	Hook) (10)	7) Smith	n's Pepp	erwort or
Roadsides and fields. Rare	2				
LAIRG ROGART					KILDONAN
L. latifolium L. (107) Ditt					
Introduced. Recorded 183	3 by H. C.	Watson v	vithout	locality.	

# Thlaspi L.

T. arvense L. (107) Field			· Dono		
Roadsides, waste places a	DORNOCH			LOTH	KILDONAN
Teesdalia R. Br.					
T. nudicaulis (L.) R. Br. In sandy places. Very range ROGART		•			
Rogart (Tressady, 1951, I Dornoch (Cuthill Sands, 1		)			
Capsella Medic.					
C. bursa-pastoris (L.) Med Waste places, roadsides a CREICH LAIRG ROGART ASSYNT EDDRACHILLIS Cochlearia L.		Frequent. GOLSPIE	erd's-pu CLYNE FARR	LOTH	KILDONAN
C. officinalis L. (107, 108) Sea-cliffs, shingle shores a CREICH ————— ASSYNT EDDRACHILLIS		arshes. Fre		LOTH	KILDONAN
C. alpina (Bab.) H. C. Wa Rock-ledges on mountain		08) Alpino	e Scurvy	7-grass	
Creich (Ben More Assynt Durness (Ben Hope) Tongue (Ben Loyal)	DURNESS	TONGUE			
C. scotica Druce (108) Sec Coastal rocks and shingle			l west co	oasts.	
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
C. danica L. (108) Danish On sandy sea-shores. Rar		ass			

Tongue (Kyle of Tongue) Farr (Invernaver)	DURNESS TO	NGUE F	'ARR	
Subularia L.				
S. aquatica L. (107, 108). Sandy margins of lochans  ———————————————————————————————————			the east.	_
Lunaria L.				
L. annua L. (107) Honest Garden escape. Clyne (Brora, 1949, W.A. Draba L.				
D. norvegica Gunn. (107, Rock-ledges on mountain		hitlow-gr	rass	
Creich (Ben More, 1888, 2 Durness (Ben Hope, 1833			959, D.A.R.)	
D. incana L. (107, 108) Esandy turf by the sea and CREICH ————————————————————————————————————		on moun	ntains. Frequen	t. KILDONAN
Erophila DC.				
E. verna (L.) Chevall. (10 On dry banks, grassland in north and west.		equent in		

## Cardamine L.

C. pratensis L. (107, 108) Cuckooflower or Lady's Smock In damp pastures. Common, widespread.

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN CREICH ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. flexuosa With. (107, 108) Wavy Bitter-cress or Wood Bitter-cress In moist shady places. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. hirsuta L. (107, 108) Hairy Bitter-cress Waste places, roadsides, walls. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Barbarea R. Br. B. vulgaris (L.) R. Br. (107, 108) Winter-cress or Yellow Rocket Moist banks. Very rare. ROGART -FARR Rogart (Rogart, 1959, M.McC.W.) Farr (Altnaharra, 1885, F.J.H.) Cardaminopsis (C. A. Mey) Hayek C. petraea (L.) Hiit. (107, 108) Northern Rock-cress Cliffs and quartz screes on hills. Rare. DURNESS -Kildonan (Ben Griam Beg, 1962, A.McC.S.) Durness (Foinaven, summit, 1833, J.M., 1957, E.A.B.) var. hispida DC. Durness (Ben Hope, 1833, J.M., 1900; E.S.M., 1914, G.C.D.; 1959, J.A.) Arabis L. A. hirsuta (L.) Scop. (107, 108) Hairy Rock-cress On dunes, banks and basic rocks. Occasional. DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS TONGUE Rorippa Scop.

R. nasturtium-aquaticum (L.) Hayek (107, 108) Water-cress In streams and ditches. Occasional.

CREICH LAIRG	DORNOCH		CLYNE		
, 4	DURNESS	TONGUE	FARR		
R. microphylla (Boenn.) In ditches. Occasional.	Hyland (10	07, 108) O	ne-rowe	l Water	-cress
	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
Hesperis L.					
H. matronalis L. (107, 10 Shady damp places. Gard			.1		
CREICH LAIRG —— ASSYNT ——	-		CLYNE	LOTH	KILDONAN
Alliaria Scop.					
A. petiolata (Bieb.) Cava Jack-by-the-Hedge Roadsides. Rare.	ra et Gran	de (107) G	arlic Mu	istard o	r
CREICH —	DORNOCH				KILDONAN
Sisymbrium L.					
S. officinale (L.) Scop. (1 Waste places. Occasional		edge Must	ard		
CREICH ————————————————————————————————————	DORNOCH	GOLSPIE	FARR	LOTH	KILDONAN
S. altissimum L. (108) To Waste places. Casual. Ve Assynt (Lochinver, 1944,	ery rare.				
Arabidopsis (DC.)	Heynh.				
A. thaliana (L.) Heynh. Roadsides, waste places. CREICH LAIRG ROGART ASSYNT ——		n the east	, very ra	are in w	est. KILDONAN
Decaymainia Webl	& Routh				

 ${\bf D.}$  sophia (L.) Webb ex Prantl. (107) Flixweed Waste places. Very rare.

Dornoch (Dornoch, 1952, J.A.; Poles, 1960, J.A.) Golspie (Golspie, 1898, E.S.M. & W.A.S.)

### RESEDACEAE

Reseda L.

R. luteola L. (107) Weld or Dyer's Rocket On the railway bank. Casual. Creich (Invershin, 1888, W.C.)

### VIOLACEAE

Viola L.

V. riviniana Reichb. (107, 108) Common Dog-violet
On banks, heaths and woods. Common, widespread.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

V. canina L. (107, 108) Heath Dog-violet

On dunes, heaths and dry banks. Frequent in coastal areas in the north and west.

--- LAIRG

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

V. lutea Huds. (108) Mountain Pansy On mountain grassland. Very rare.

ASSYNT — TONGUE

Assynt (Inchnadamph, 1886, A.G.) Tongue (Ben Loyal, 1888, W.C.)

V. tricolor L. (107, 108) Wild Pansy

sub sp. tricolor. Cultivated ground and waste places. Frequent.

sub sp. curtisii (Forst.) Syme. On dunes.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

V. arvensis Murr. (107, 108) Field Pansy

Cultivated fields. Occasional in east, rare in north and west.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT — TONGUE FARR

### **POLY GALACEAE**

Polygala L.

P. vulgaris L. (107, 108) Common Milkwort

Dry, basic grassland and rocks. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

P. serpyllifolia Hose (107, 108) Heath Milkwort

Heaths and pastures. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

### **GUTTIFERAE**

Hypericum L.

H. androsaemum L. (108) Tutsan

Introduced. Very rare.

Assynt (Lochinver, 1944, A.J.W.)

H. perforatum L. (107) Perforate or Common St John's-wort

On banks. Very rare.

Kildonan (Kinbrace, 1882, J.G.)

H. maculatum Crantz (107) Imperforate St John's-wort sub sp. obtusiusculum (Tourlet) Hayek On banks. Introduced.

Lairg (Lairg)

**H. tetrapterum** Fr. (107) Square-stalked St John's-wort Moist banks. Rare.

----- ROGART ----- KILDONAN

H. pulchrum L. (107, 108) Slender St John's Wort
Grassy places and heaths. Common, widespread.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## CISTACEAE

Helianthemum Mill.

**H.** chamaecistus Mill. (107) Common Rockrose On banks and rocks. Rare.

# CARYOPHYLLACEAE

Silene L.

	ris (Moench) Gar ed ground. Rare.		08) Bladd	er Camp	oion	
			GOLSPIE	,	LOTH	
				FARR		
	ma With. (107, 1 shores and cliffs.	Frequent of	on north a	nd west	coast; l	ocal in east.
		DORNOCH	GOLSPIE		<del>,</del>	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	s (L.) Jacq. (107 lges and cliffs on t				nd nort	h coasts.
CREICH						KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
Sea-cliffs CREICH ASSYNT S. alba (	(L.) Clairv. (107 s, banks and woo LAIRG ROGART EDDRACHILLIS Mill.) E. H. L. K	dland. Con DORNOCH DURNESS Trause (107	omon. GOLSPIE TONGUE	CLYNE FARR	LOTH pion	KILDONAN
Fields, r	oadsides. Occasio					
	LAIRG	DORNOCH				KILDONAN
ASSYNT		DURNESS	TONGUE	FARR		
L	ychnis L.					
	uculi L. (107, 108, common.  LAIRG ROGART  EDDRACHILLIS		GOLSPIE	 FARR	LOTH	KILDONAN
C	erastium L.					
	se L. (107, 108)			——FARR		KILDONAN

C. tomentosum L. (107) S Garden escape.	now-in-su	mmer			
$Kildonan\ (Kildonan)$					
C. alpinum L. (107, 108) Screes and ledges on mound of the control	ntains. Ra  DURNESS  Ull)  or and Beg	TONGUE		····	KILDONAN
C. arcticum Lange (107) . Rocks on mountains. Ver		ise-ear			
Creich (Conival, 1908, E.S.	S.M. & F.	J.H., 1959	), D.A.R	2.)	•
C. holosteoides Fr. Comm C. fontanum Baumg. sub sp. trivale (Murb.) Ja Grassy places and waste g CREICH LAIRG ROGART ASSYNT EDDRACHILLIS	las (107, 1	08) ommon, wi GOLSPIE	despread CLYNE FARR		KILDONAN
sub sp. scoticum Jalas & Farr (Strathy)	P. D. Sell	(108)			
C. glomeratum Thuill. (10 Roadsides and cultivated			e-ear		
CREICH LAIRG ROGART ASSYNT EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
C. atrovirens Bab. (107, 1 Sandy places near the sea	,		r Dark-g	reen Mo	ouse-ear
ASSYNT EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
C. semidecandrum L. (107) Dry sandy places near th			ear		
ASSYNT —	DURNESS	GOLSPIE			

# Stellaria L.

S. ciliata Fr. (107) Fringed Pearlwort

S. media (L.) Vill. (107, 1					
Cultivated ground and wa	-		_		
CREICH LAIRG ROGART ASSYNT EDDRACHILLIS	DORNOCH DURNESS	TONGUE	CLYNE FARR	LOTH	KILDONAN
S. pallida (Dumort.) Piré Sandy ground by the sea.		er Chickwe	eed		
		GOLSPIE			
Golspie (Loch Fleet, 1897,	E.S.M., I	(960, J.A.)			
S. neglecta Weihe (108) G Shady places. Rare.	reater Chi	ckweed			
ASSYNT ————————————————————————————————————			FARR		
S. holostea L. (107, 108) ( Woodlands and scrub. Co		tehwort			
CREICH LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT ——	DURNESS	TONGUE	FARR		
S. graminea L. (107, 108) Grassy heaths and woodla					
CREICH LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	DURNESS	TONGUE	FARR		
S. alsine Grimm (107, 108 Ditches, marshes, woodlar					
CREICH LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
Sagina L.					
S. apetala Ard. (107, 108) Bare places. Rare.	Annual P	earlwort			
			CLYNE		
Clyne (Balnacoil, 1957, M Tongue (Tongue, 1957, M		TONGUE			

Rara oro	und. Very occasi	onal				
	LAIRG ——	DORNOCH		CLYNE	· ·	KILDONAN
S. mariti	<b>ma</b> Don (107, 10	8) Sea Pea	rlwort			
Sea-cliffs	s and salt marshe	s. Very oc	casional.			
		DORNOCH	GOLSPIE			KILDONAN
ASSYNT	<del></del> ·	DURNESS	TONGUE	FARR		•
	mbens L. (107, 10 laces. Common, v			rlwort		
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
Cliff-ledg to 2900 f Creich (I Assynt (I Eddrach Tongue (F Farr (F	Ben More, 1960, Stoer, 1959, J.A. illis (Eylestrome, (Ben Loyal, 1888 arr Bay, Swordly	D.A.R.) ) 1964, J.A. g, W.C.) g, Kirtomy,	bare grav ) Strathnave	elly pla	ick, 1960	0, J.A.)
	<b>ita</b> (Sw.) Presl. (idy and gravelly id west.					
ASSYNT	ROGART EDDRACHILLIS	DURNESS	TONGUE	FARR		KILDONAN
	a (L.) Fenzl (107 sand and dunes l ————— EDDRACHILLIS	by the sea.	Occasiona	ıl. ——	LOTH	
TM	linuantia T					

#### Minuartia L.

M. rubella (Wahlenb.) Hiern (108) Mountain or Alpine Sandwort Mountain cliffs. Very rare. Not seen for many years. Durness (Ben Hope, 1833, R.G.)

## Cherleria L.

 ${\bf C.}$  sedoides L. (107, 108) Cyphel

On mountain screes to 2900 ft. Frequent on mountains in the north and west. On Ben Griam in the east.

CREICH						KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
H	onkenya Ehrh.					
	ides (L.) Ehrh. (last sand and shing	gle. Freque	nt.	¢		
ASSYNT	EDDRACHILLIS	DURNESS		CLYNE FARR	LOTH	KILDONAN
М	oehringia L.					
	r <b>via</b> (L.) Clairv. (i lands. Rare.	107) Three	-nerved S	${ m andwort}$		
	ROGART	DORNOCH				
Rogart ( Dornoch	$Rogart) \ (Cambusmore)$					
A	renaria L.					
On bare	llifolia L. (107, 10 ground, dunes ar serpyllifolia					
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
sub sp. l	eptoclados (Reich	nb.) Nymar	n. Slender	Sandwo	rt	,
		DURNESS	TONGUE			
Sandwo	egica Gunn. sub s rt n hills and river s			retic or	Norweg	ian
ASSYNT Assynt (	Inchnadamph)					. ,
S	pergula L.					
Cultivat	sis L. (107, 108) ded fields. Commo	n.		OI WATER	I Omit	TH DOM AN
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN

# Spergularia (Pers) J. & C. Presl

C. bonus-henricus L. (107) Good King Henry Golspie (Golspie Tower, 1888, J.G.) Old Record.

	(L.) J. & C. Pready and gravelly LAIRG ROGART EDDRACHILLIS	places. Oc DORNOCH	casional.	ourrey FARR	-	KHLDONAN
	(L.) C. Presl (10 blaces in salt-man		occasiona			
S. marin	a (L.) Griseb. (10 narshes. Rare.	07, 108) Le				
ASSYNT		DORNOCH	GOLSPIE TONGUE	FARR		
	LLECEBRACE cleranthus L.	AE				
Sandy w	s L. (107) Annua aste ground. Old Golspie, 1888, J.	record.				
	ORTULACACE Contia L.	EAE				
	na L. sub sp. lan laces, springs, di				Blinks	
CREICH	LAIRG ROGART	DORNOCH DURNESS	GOLSPIE	CLYNE FARR	LOTH	KILDONAN
	liata (Willd.) Ho	well (107)	Spring Bea	auty or	Perfoliat	e Purslane
		DORNOCH	GOLSPIE	CLYNE		<del></del>
	ea (L.) Howell (1 ms and on damp LAIRG ——					KILDONAN
	HENOPODIAC nenopodium L.	EAE				

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C. album L. (107, 108) Fat Hen In cultivated ground and waste places. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. rubrum L. (108) Red Goosefoot Assynt (Lochinver, 1886, A.G.) Old Record. Atriplex L. A. littoralis L. (107) Grass-leaved Orache or Shore Orache Sea-shore. Rare. DORNOCH ----Dornoch (Ferrytown, 1960, J.A.) A. patula L. (107, 108) Common Orache Cultivated fields and waste places. Occasional. LAIRG — DORNOCH GOLSPIE KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR A. hastata L. (107, 108) Hastate Orache or Spear-leaved Orache. Waste places. Occasional. GOLSPIE KILDONAN ASSYNT ----DURNESS TONGUE FARR A. glabriuscula Edmondst. (107, 108) Babington's Orache On sandy and shingly shores. Occasional on all coasts. DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR A. laciniata L. (107) Frosted Orache On sandy sea-shores. Rare — — DORNOCH GOLSPIE — FARR Farr (Farr, Bettyhill, 1833, H.C.W.) Suaeda Forsk. ex Scop.

Dornoch (Ferrytown, Dornoch, Skelbo)

On salt-marshes. Rare.

Golspie (Loch Fleet)

S. maritima (L.) Dumort. (107) Annual Seablite

# Salsola L.

	L. (107, 108) Pric	kly Saltwo	rt			
On sanc	ly shores. Rare.	T. O.D. T. O. O.T.				
	EDDRACHILLIS a (Dornoch)	DORNOCH	TONGUE	FARR		
Eddrach	(Golspie) illis (Loch Laxfor (Melness) Ielvich)	rd, Sandwo	od)			
S	alicornia L.					
	aea L. (107, 108) salt-marshes. Ran					
		DORNOCH	GOLSPIE			
			TONGUE			
Golspie	(Ferrytown, Dor (Loch Fleet) (Kyle of Tongue)		oo, Cambus	emore)		
	ILIACEAE Ilia L.					
	opaea L. (107, 108 ced. Widely plant			, sparse :	in north	n-west.
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS			CLYNE FARR		KILDONAN
	IALVACEAE Ialva L.					
	ehata L. (107, 108 banks. Garden esc					
	ROGART	DORNOCH	GOLSPIE TONGUE			KILDONAN
	stris L. (107) Con laces. Occasional.		ow			
		DORNOCH	GOLSPIE	CLYNE		KILDONAN
	eta Wallr. (107) l laces. Rare.	Dwarf Mal	low			

	. ——	GOLSPIE	<u> </u>	<del></del>	KILDONAN
Golspie (Golspie) Kildonan (Helmsdale)					
LINACEAE Linum L.					
L. catharticum L. (107, 1 Heaths, moors, pastures, CREICH LAIRG ROGART		nmon, wie		•	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
Radiola Hill					
R. linoides Roth (107, 100) On bare sandy soil. Rare Golspie (Golspie, 1957, M. Tongue (Eilean Iosal, 186) Achininver & Coldbackie,	and local.  ———————————————————————————————————				
GERANIACEAI Geranium L.	Ξ				
G. pratense L. (107) Mean Introduced. Rare.	dow Crane	sbill GOLSPIE		American recovered	KILDONAN
G. endressii Gay (107) Fr On roadsides. Introduced CREICH					KILDONAN
G. dissectum L. (107, 108 Grassy and waste places.			oill		

CREICH LAIRG ROGART DORNOCH GOLSPIE KILDONAN ASSYNT EDDRACHILLIS FARR

G. molle L. (107, 108) Dove's-foot Cranesbill Dunes, fields, roadsides, waste places. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

G. robertianum L. (107, 108) Herb Robert

Shady banks, walls and shingle shores. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

Erodium L'Hérit.

E. cicutarium (L.) L'Hérit. (107, 108) Common Storksbill sub sp. dunense Andreas

Grassy and sandy places. Occasional.

DORNOCH — CLYNE LOTH KILDONAN ASSYNT — TONGUE FARR

### OXALIDACEAE

Oxalis L.

O. acetosella L. (107, 108) Wood-sorrel

In woods and shady places amongst rocks on hills. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

### BALSAMINACEAE

Impatiens L.

I. glandulifera Royle (107) Indian Balsam or Policeman's Helmet Introduced. Waste places.

Golspie (Golspie)

## ACERACEAE

Acer L.

A. pseudoplatanus L. (107, 108) Sycamore Introduced, widely planted throughout the county.

# HIPPOCASTANACEAE

Aesculus L.

A. hippocastanum L. (107) Horse-chestnut Commonly planted in eastern areas.

## AQUIFOLIACEAE Ilex L. I. aquifolium L. (107, 108) Holly Amongst rocks on hills. Occasional in north and west. Introduced in south and east. ROGART DORNOCH ---CREICH ----ASSYNT EDDRACHILLIS DURNESS TONGUE FARR LEGUMINOSAE Ulex L. U. europaeus L. (107, 108) Gorse Roadsides, old woodlands, heaths. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR U. gallii Planch. (107, 108) Western Gorse or Dwarf Furze On heaths. Very rare. KILDONAN ASSYNT -Kildonan (Kinbrace, 1962, M.McC.W.) Assynt (Lochinver, 1944, A.J.W. & M.S.C.) Sarothamnus Wimm. S. scoparius (L.) Wimmer ex Koch (107, 108) Broom Amongst scrub and on heaths. Common in the east, sparse (introduced) in north and west. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT ----DURNESS TONGUE FARR Ononis L. O. repens L. (107, 108) Common Restharrow On dunes. Rare. GOLSPIE FARR Golspie (Golspie) Farr (Bettyhill, Farr) Medicago L.

M. sativa L. (108) Lucerne In cultivated fields. Casual. Farr (Farr Bay, 1957, J.A.)

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	ina L. (107, 108) unes and waste p			V + - + - + - +	• • •	
		DORNOCH		CLYNE		KILDONAN
<u> </u>	EDDRACHILLIS	DURNESS		FARR		
M	lelilotus Mill.					
In cultiv	Medic. White Medrated field. Casua arr Bay, 1958, J.	l.			. •	
T	rifolium L.					
	nse L. (107, 108) nd pastures. Com	mon.				
CREICH ASSYNT		DORNOCH		CLYNE	LOTH	KILDONAN
ASSINT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	um L. (107, 108) s. Occasional.	Zigzag Clov	ver			
	EDDRACHILLIS		GOLSPIE	FARR		KILDONAN
	EDDRACHILLIS			FARR		
T. hybri	dum L. (107, 108	) Alsike Cle	over			
	nd roadsides. Occ					
		DORNOCH				KILDONAN
<del></del>	EDDRACHILLIS	DURNESS	TONGUE	FARR		
T renen	s L. (107, 108) W	Thite Clove	ar.			
Pastures	s, dunes and road	sides. Com	mon, wide	espread.		
		DORNOCH		CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	estre Schreb. (10' places in dunes. (		p Trefoil			
		DORNOCH		CLYNE	LOTH	KILDONAN
		DURNESS	TONGUE	FARR		
m a	Cib4b /107 14	00 \ T	Thofa:1			
	um Sibth. (107, 10 sy places. Freque			rior.		
CREICH	v 1	DORNOCH		CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		

# Anthyllis L.

	eraria L. (107, 108 places, cliffs by th			sie rock.	Frequer	nt near sea.
		DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
L	otus L.					
	culatus L. (107, 19) places, dunes, scre					ad.
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	osus Schkuhr. (16 assland. Occasion		reater Bird		efoil	ZII DON 437
	EDDRACHILLIS	DURNESS	TONGUE	CLYNE FARR		KILDONAN
A	astragalus L.	DOWNESS	10114012	raivi		
	eus Retz. (107) Po					
On sand	y turf and dunes	DORNOCH		OT STATE	T OFFIT	
		DOKNOCH	GOLSFIE	CLYNE	LOTH	
0	exytropis DC.					
	ri Bunge (108) Pres and sea-cliffs. I		ropis			
				FARR		
Farr (In	nvernaver, Bettyhi	ll, Farr, K	irtomy, St			
V	icia L.					
	ta (L.) Gray (107 nd waste places.					
	*****	DORNOCH		CLYNE	LOTH	KILDONAN
	sperma (L.) Schre			·e		
CIVILOII			COLULIE			

Creich (Invershin, 1908, G.C.D.) Golspie (Golspie, 1903, G.C.D.)

V. cracca L. (107, 108) T		h			
Hedges and roadsides. Fr	-				
CREICH LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
V. orobus DC. (108) Woo Rocky places near the sec		etch			
ASSYNT EDDRACHILLIS Assynt (Lochinver, Achme Eddrachillis (Laxford, Ki					
V. sylvatica L. (108) Wood Dunes and cliffs near the		sional.			
ASSYNT —	DURNESS		FARR	-	
Assynt (Clachtoll)	,				
Durness (Kyle of Durness		7 • 7 \			
Farr (Bettyhill, Farr, Ar	madale, Me	elvich)			
V. sepium L. (107, 108) Hoadsides, grassy places.		L			
	DORNOCH	COLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS		FARR	20111	
V. angustifolia L. (107, 10 Dunes and roadsides. Occ CREICH ————————————————————————————————————	easional.				KILDONAN
	DORNOCH		CLYNE		KILDUNAN
ASSYNT		TONGUE	FARR		
V. sativa L. (107, 108) Co Fields. Occasional.	ommon Vet	teh			
CREICH —	DORNOCH		CLYNE		
ASSYNT		TONGUE	FARR		
V. lathyroides L. (107) S <sub>I</sub>					
	DORNOCH			. —	KILDONAN
70 7 / 75 7 7050					
Dornoch (Mound, 1957, I Kildonan (Kilpheder, 196					

## Lathyrus L.

L. pratensis L. (107, 108) Meadow Vetchling Roadsides and waste places. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR L. montanus Bernh. (107, 108) Bitter Vetch Woods, moorland, grassy banks. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR ROSACEAE Spiraea L. S. salicifolia L. (107) Bridewort or Willow Spiraea Damp places amongst scrub. Escape from cultivation. Occasional. LATEG ROGART DORNOCH GOLSPIE Filipendula Mill. F. ulmaria (L.) Maxim. (107, 108) Meadowsweet Ditches, marshes and wet woods. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Rubus L. R. chamaemorus L. (107, 108) Cloudberry Wet peaty places on hills. Common. CREICH LATEG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR R. saxatilis L. (107, 108) Stone Bramble Rocky and stony places. Common in west. CREICH CLYNE · ASSYNT EDDRACHILLIS DURNESS TONGUE FARR **R.** idaeus L. (107, 108) Raspberry Woods and hedges. Frequent in east, sparse in north and west.

DURNESS TONGUE

CREICH LAIRG ROGART DORNOCH GOLSPIE

ASSYNT EDDRACHILLIS

KILDONAN

CLYNE LOTH

FARR

Sub-genus Rubus F. & S. Section Suberecti P.J.Muell.

R. scissus W.C.R.Wats. (107) Creich (Rosehall, 1959, J.A.) Dornoch (Dornoch, 1959, J.A.)

R. plicatus Weihe & Nees (107) Creich (Rosehall & Invershin, 1896, E.S.M. & F.J.H.)

R. fissus Lindl. (107) Creich (Oykell Bridge, 1897, E.S.M.; Rosehall, 1960, J.A.; Invershin, 1908, G.C.D.)

Section Triviales P.J.Muell.

R. sublustris Lees (107) Creich (Invershin, 1897, E.S.M.) Dornoch (Mound, 1959, J.A.) Golspie (Golspie, 1903, G.C.D.)

R. latifolius Bab. (107) Dornoch (Mound, 1962, M.McC.W.) Clyne (Brora, 1957, M.McC.W.)

R. purpureicaulis W.C.R.Wats. (107) Dornoch (Skelbo Street, 1963, J.A.)

Section Sylvatici P.J.Muell.

R. nemoralis P.J.Muell. (108) Eddrachillis (Loch Stack, 1963, J.A.)

R. danicus (Focke) Focke (108)

Eddrachillis (Laxford Bridge, 1962, M.McC.W.)

Tongue (Tongue, 1897, E.S.M. & W.A.S.)

R. villicaulis Koehl ex Weihe & Ness (107, 108)

Abundant in the south and east, local in the north and west.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT —— DURNESS TONGUE ——

Section Appendiculati (Genev.) Sudre

R. mucronulatus Bor. (107)

Abundant in south and e	ast. DORNOCH	GOLSPIE	CLYNE-	LOTH	KILDONAN
R. radula Weihe ex. Boer Dornoch (Dornoch, 1963, Golspie (Golspie, 1963, J. Loth (Culgower, 1963, J.A.	J.A.) A.; 1897, I	E.S.M. &	W.A.S.)		
Potentilla L.					
P. palustris (L.) Scop. (10 Marshes and bogs. Comm CREICH LAIRG ROGART ASSYNT EDDRACHILLIS		east, sparse GOLSPIE			KILDONAN
P. sterilis (L.) Garcke (10 Amongst scrub. Rare.	8) Barren	Strawberr	У		
	DURNESS	TONGUE	FARR		
P. rupestris L. (107) Rock Calcareous cliff ledges. Very property of the control	ery rare.  DORNOCH				
P. anserina L. (107, 108) Waste places, dunes, shir	Silverweed	Frequent		LOTH	KILDONAN
P. crantzii (Crantz) G.Be Rock-ledges on hills. Ver		sch (107, 1	.08) Alpi	ine Cinq	uefoil KILDONAN
ASSYNT  Kildonan (Ben Griam) Assynt (Hills round Inch Durness (Ben Hope)	DURNESS madamph)				ALLO OHAIT
P. erecta (L.) Räusch (10 Heaths, grassland and worderich laire rogart assynt eddrachillis		non, wides GOLSPIE		LOTH	KILDONAN

	ing Cinque	efoil			
DRACHILLIS	DURNESS				
aldia L.					
			ser Cinqu	uefoil	
DRACHILLIS	DURNESS	TONGUE	FARR		
aria L.					
		-			
			CLYNE FARR	LOTH	KILDONAN
n L.					
es. Occasional IRG ROGART	in east, sp	arse in no			KILDONAN
places in ditch	nes and wo DORNOCH	ods. Freq		LOTH	
s L.					
on hills and o			uent in r	north an	
	DURNESS	TONGUE	FARR		KILDONAN
monia L.					
	rub. Very i	rare.	FARR		
	DERACHILLIS  aldia L.  ens L. (107, 108)  con mountains  DERACHILLIS  caria L.  (107, 108) William and woods.  IRG ROGART  DERACHILLIS  a. L. (107, 108)  while ROGART  DERACHILLIS  (107, 108) William and content and conten	des. Rare.  DDRACHILLIS DURNESS  aldia L.  ens L. (107, 108) Sibbald on mountains. Occasion DURNESS  DDRACHILLIS DURNESS  aria L.  (107, 108) Wild Strawboks and woods. Frequent. DURNESS  DDRACHILLIS DURNESS  In L.  1 L. (107, 108) Wood Aves. Occasional in east, sping rogart dornoch DURACHILLIS  (107, 108) Water Avens places in ditches and woods rogart dornoch DURACHILLIS DURNESS  Is L.  Is L. (107, 108) Mountain on hills and on coastal of east.  DDRACHILLIS DURNESS  Ben Griam)  monia L.  a L. (107, 108) Agrimony es amongst scrub. Very in the control of th	por aldia L.  ens L. (107, 108) Sibbaldia or Less on mountains. Occasional.  Derachillis durness tongue garia L.  (107, 108) Wild Strawberry ks and woods. Frequent.  Ing rogart dornoch golspie durness tongue durness tongue durness tongue durness tongue durness tongue durness. Occasional in east, sparse in no ing rogart dornoch golspie durness in ditches and woods. Frequence (107, 108) Water Avens places in ditches and woods. Frequence rogard dornoch golspie durness tongue des L.  Is L. (107, 108) Mountain Avens on hills and on coastal turf. Frequences and mountain and coastal turf. Frequences and Gram)	ces. Rare.  DDRACHILLIS DURNESS ———————————————————————————————————	Derivation of the series of th

# Alchemilla L.

	a L. (107, 108) A in pastures. Desce			equent in	n west, r	are in east.
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	escens Wallr. (10 ous grassland. Ver					
ASSYNT						
Assynt (	Inchnadamph)					
sub sp. v	ulis Buser vestita (Buser) M ds. Frequent.	.E.Bradsha	aw (107, 10	08)		
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	•	DURNESS				
	filicaulis (107, 108 n grasslands. Free		TONGUE	CLYNE FARR		KILDONAN
	erulans Buser (10' -ledges. Rare.	7)				
	Neygent. (107, 1 ds. Frequent.	108)				
CREICH	LAIRG ROGART	DORNOCH			LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	rae (Buser) Stéfa n grassland. Occa —————— EDDRACHILLIS		108)			

Aphanes L.

A. arvensis L. (107, 108) Parsley Piert

DORNOCH -

EDDRACHILLIS DURNESS TONGUE FARR

A. microcarpa (Boiss. & Reut.) Rothm. (107, 108) Slender Parsley Piert Fields and wasteplaces. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS — TONGUE FARR

### Acaena Mutis ex L.

A. anserinifolia (J.R. & G.Forst.) Druce (107, 108) Pirri-pirri-bur Garden escape.

Dornoch (Cambusmore)

Farr (Melvich)

### Rosa L.

R. pimpinellifolia L. (107, 108) Burnet Rose

Dunes and sandy heaths. Frequent in all coastal areas.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

×R. glabra W-Dod (107) Clyne (Brora, 1898, E.S.M. & W.A.S.)

×R. involuta Sm. (107, 108)
Golspie (Golspie, 1903, G.C.D.)
Assynt (Lochinver, 1890, E.S.M. & F.J.H.)
Durness (Heilam, 1901, E.S.M.)
Farr (Bettyhill, 1910, E.S.M., Armadale & Melvich, 1916, E.S.M.)

×R. sabinii Woods (107, 108) Creich (Inveran, 1959, J.A.) Assynt (Loch Assynt & Kylesku, 1890, F.J.H. & E.S.M.) Farr (Invernaver, 1897, E.S.M. & W.A.S.)

R. canina L. var. globularis (Franch.) Dum. (108) Dog Rose Assynt (Lochinver, 1944, A.J.W. & M.S.C.)

R. dumalis Bechst. (107, 108)

Margins of woods, amongst scrub and roadsides. Frequent in east.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

### The undermentioned forms have been recorded:

var. typica W-Dod (107, 108)

Creich (Oykell Bridge, 1890, E.S.M., Rosehall & Inveran, 1959, J.A.)

Rogart (Rogart, 1959, J.A.)

Dornoch (Clashmore, Dornoch, Torboll, Mound, 1959, J.A.)

Golspie (Golspie, 1959, J.A.)

Assynt (Lochinver, Inchnadamph, Kylesku, 1890, F.J.H. & E.S.M.)

Durness (Ben Hope, 1827, R.G.)

Farr (Bettyhill, 1889, F.J.H. & E.S.M., 1908, G.C.D., Farr, 1959, J.A.)

## var. schlimpertii Hofm.

Assynt (Lochinver, 1944, A.J.W. & M.S.C.)

var. aspernata (Desegl.) Briggs. (107)

Creich (Rosehall, 1890, F.J.H. & E.S.M.)

var. rueteri (God.) Cott. (107)

Lairg (Lairg, 1960, J.A.)

Dornoch (Astle, 1959, J.A.)

Golspie (Strath Fleet, 1960, J.A.)

## var. glaucophylla (Winch) W-Dod (107, 108)

Creich (Invershin, 1908, G.C.D., Bonar Bridge, 1960, J.A.)

Kildonan (Helmsdale, 1960, J.A.)

Assynt (Lochinver, 1944, A.J.W. & M.S.C., Inchnadamph & Kylesku, 1890, F.J.H. & E.S.M.)

var. subcanina Chr. (107, 108)

Rogart (Rogart, 1959, J.A.)

Golspie (Mound, 1959, J.A.)

Farr (Farr Bay, 1959, J.A.)

var. watsoni (Baker) W-Dod (108) Assynt (Lochinver, 1890, E.S.M.)

var. bakeri (Déségl.) W-Dod (107)

Golspie (Loch Fleet, 1897, E.S.M. & W.A.S.)

Clyne (Brora, 1897, E.S.M. & W.A.S.)

# f. setigera W-Dod (108)

Assynt (Lochinver & Achmelvich, 1944, A.J.W. & M.S.C.)

var. pruinosa (Baker) W-Dod (108)

Assynt (Lochinver, 1897, E.S.M. & W.A.S.)

R. villosa L. (107, 108)  Wood margins. Occasional.  DORNOCH GOLSPIE  ASSYNT — FARR
var. mollis Sm. (107, 108)  Dornoch (Dornoch, 1903, G.C.D.)  Golspie (Golspie, 1903, G.C.D.)  Assynt (Traligill Burn, 1886, A.G.)  Farr (Bettyhill, 1897, W.F.M.)
f. coerulea Woods (107, 108)  Dornoch (Mound, 1959, J.A.)  Assynt (Inchnadamph, 1909, E.S.M. & W.A.S.)  Farr (Bettyhill, 1889, W.F.M., Melvich, 1916, E.S.M.)
×R. schoolbredi W-Dod (107) Dornoch (Cuthill, 1959, J.A.)
R. tomentosa Sm. (107, 108)  Margins of woods. Occasional.  CREICH LAIRG — GOLSPIE — — — — — — — — — — — — — — — — — — —
var. typica W-Dod (107, 108) Creich (Invershin, 1908, G.C.D.) Lairg (Lairg, 1908, G.C.D.) Assynt (Achmelvich, 1944, A.J.W., Unapool, 1886, A.G., Kylesku, 1908, E.S.M.)
var. scabriuscula Sm. (107) Golspie (Dunrobin, 1903, G.C.D.)
R. sherardii Davies (107, 108)  Amongst scrub. Frequent.  CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT — DURNESS TONGUE FARR
var. typica W-Dod (107, 108)  Lairg (Lairg, 1960, J.A.)  Dornoch (Astle, Badnanish, 1960, J.A.)  Golspie (Dunrobin, 1960, J.A.)  Kildonan (Helmsdale, 1960, J.A.)  Assynt (Inchnadamph, 1890, E.S.M.)  Durness (Drocheid Mor, 1960, J.A.)  Farr (Farr Bay, 1959, J.A., Melvich, 1916, E.S.M.)

# f. submollis (Ley) W-Dod (107, 108) Creich (Bonar Bridge, 1959, J.A.) Dornoch (Clashmore, Camore, 1959, J.A.) Assynt (Kylesku, 1909, E.S.M. & W.A.S.)

# f. pseudomollis (Baker) W-Dod (107, 108) Dornoch (Mound, 1959, J.A.) Clyne (Dalcharn, 1960, J.A.) Loth (Loth, 1960, J.A.) Durness (Sangomore, 1960, J.A.)

## f. uncinata (Lees) W-Dod (107, 108) Creich (Inveran, 1960, J.A.) Dornoch (Dornoch, 1959, J.A.) Tongue (Coldbackie, 1909, E.S.M. & W.A.S.)

var. omissa (Déségl.) W-Dod (107, 108) Lairg (Lairg, 1960, J.A.) Dornoch (Astle, 1960, J.A.) Farr (Farr Bay, 1959, J.A.)

## f. resinosoides (Crép.) W-Dod (107, 108) Creich (Rosehall, 1959, J.A.) Rogart (Rogart, 1959, J.A.) Dornoch (Dornoch, 1959, J.A.) Assynt (Lochinver, 1908, E.S.M.)

# var. woodsiana (Groves) W-Dod (107, 108) Dornoch (Evelix, 1959, J.A.) Clyne (Tressady, 1960, J.A.) Farr (Farr Bay, 1959, J.A.)

var. suberecta (Ley) W-Dod
Creich (Oykell Bridge, 1909, E.S.M., Invershin, 1959, J.A.)
Lairg (Lairg, 1960, J.A.)
Rogart (Rogart, 1960, J.A.)
Dornoch (Camore, 1959, J.A.)
Assynt (Lochinver, Inchnadamph, Kylesku, 1909, E.S.M. & W.A.S.)
Farr (Farr Bay, 1959, J.A., Bettyhill, Armadale, 1909, E.S.M.)

## f. glabrata Ley (108) Farr (Bettyhill, 1909, E.S.M.)

# R. rubiginosa L. (107) Sweet Briar Waste places. Escape from cultivation. Rare.

Dornoch (Dornoch, 1959, J.A.) Golspie (Golspie, 1903, G.C.D.)

#### Prunus L.

## P. spinosa L. (107, 108) Blackthorn

Amongst scrub and wood margins. Occasional in east, rare in north and west.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT —— DURNESS TONGUE FARR

## P. domestica L. (107) Wild Plum

Introduced. Old record.

Creich (Rosehall, 1890, F.J.H. & E.S.M.)

## P. avium (L.) L. (107, 108) Wild Cherry or Gean

Woodlands. Occasional. Introduced in west and north.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS —— FARR

## **P.** padus L. (107, 108) Bird Cherry

Woodlands. Occasional in east, rare in north and west.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT —— TONGUE FARR

#### Cotoneaster Medic.

# C. simonsii Bak. (107) Himalayan Cotoneaster

Escape from gardens.

Dornoch (Cambusmore)

Golspie (Dunrobin)

Clyne (Brora)

Kildonan (Kildonan)

## C. horizontalis Decne. (107) Wall Cotoneaster

Garden escape. Established on links.

Dornoch (Dornoch)

# C. microphyllus Wall. ex Lindl. (107) Small-leaved Cotoneaster

Garden escape.

Dornoch (Cambusmore)

Kildonan (Kildonan)

## Crataegus L.

ASSYNT EDDRACHILLIS

C. monogyna Jacq. (107, 108) Hawthorn Amongst scrub and in woods. Occasional, probably planted in the north. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN EDDRACHILLIS DURNESS TONGUE FARR ASSYNT Sorbus L. S. aucuparia L. (107, 108) Rowan Woods, scrub, mountain rocks. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR S. aria (L.) Crantz sensu lato (107) Common Whitebeam Planted, Occasional. CREICH -DORNOCH GOLSPIE CLYNE -S. rupicola (Syme) Hedl. (107, 108) Rock Whitebeam On limestone rocks. Very rare. DORNOCH ---ASSYNT ----Dornoch (Cambusmore, 1939, P.M.H., 1962, A.M.G.) Assynt (Inchnadamph, 1826, R.G.) CRASSULACEAE Sedum L. S. rosea (L.) Scop. (107, 108) Roseroot Shingle shores, sea-cliffs and mountain cliffs. Frequent in north and west, rare in east. CREICH -GOLSPIE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR S. telephium L. (107) Orpine Woods. Very rare. GOLSPIE Golspie (Dunrobin) S. anglicum Huds. (107, 108) English Stonecrop Sea-cliffs and shingle beaches. Occasional in west, rare in east. GOLSPIE

DURNESS TONGUE

FARR

Rocks and walls. Introdu		crop			
ROGART		GOLSPIE		·	
ASSYNT	· <del>· · · · · ·</del>		<del></del>		
S. acre L. (107, 108) Biti Dunes, shingle beaches a					
	DORNOCH	GOLSPIE	CLYNE	. LOTH	KILDONA
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
S. forsteranum Sm. (107) Introduced. Rare. Creich (Shin)	Rock Stor	necrop			
SAXIFRAGACI Saxifraga L.	EAE				
S. nivalis L. (107, 108) A Mountain cliffs, up to 27 CREICH ——		_		-	
Creich (Ben More Assynt Durness (Meall Horn, 19		A.R.			
S. stellaris L. (107, 108) 8 Wet rocks on mountains sea-level.			nd west		ıds to
CREICH — —	DUDNEGO	movorte.	EADD	LOTH	
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
S. tridactylites L. (107, 10) Bare sandy places on dur					
	DORNOCH	GOLSPIE			
Dornoch (Dornoch) Golspie (Golspie) Farr (Farr Bay)	_		FARR		
S. hypnoides L. (107, 108 Wet rock-ledges on mount CREICH ————————————————————————————————————		sea-level in GOLSPIE	the eas	t. Occas LOTH	ional.
S. aizoides L. (107, 108) Stony ground and rock-leand west. Frequent in no	edges on m	ountains.			he north

CREICH							
ASSYNT	EDDRA	CHILLIS	DURNESS	TONGUE	FARR		
Rock-led	lges on	mountain	08) Purple s, stony gr d west. At	round, sea	-cliffs an		
CREICH ASSYNT	EDDRA	CHILLIS	DURNESS	TONGUE	FARR	<del></del>	KILDONAN
C	hrysospl	enium L.					
			108) Oppo			n-saxifra	ge
CREICH ASSYNT	LAIRG EDDRAG	ROGART	DORNOCH DURNESS	GOLSPIE	_	LOTH	KILDONAN
	ARNA arnassia	SSIACE.	AE				
		and dune	Grass-of-F -slacks. Fr DORNOCH DURNESS	equent.	FARR		KILDONAN
G		LARIA		1011001	Parviv		
-	•	m.) Mert. ced. Occa	& Koch (	107, 108)	Red Curi	rant	
CREICH		ROGART	DORNOCH	GOLSPIE TONGUE	FARR		
R. spicat Introduc Kildonan	ed.		Downy C	turrant or	Erect-sp	iked Red	d Currant
Woods.			Black Curra	e.			
CREICH			DORNOCH	TONGUE	FARR		***************************************
			) Goosebe				
CREICH ASSYNT			DORNOCH DURNESS	GOLSPIE			KILDONAN

## DROSERACEAE

D	Prosera L.					
Wet pea	difolia L. (107, 10 ty places in moon	s and bogs	s. Commor	ı, wides <sub>l</sub>	oread.	
ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
Wet pea	ca Huds. (107, 10 ty places on moo	rs and in b	ogs. Com	-	~	
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
	vata Mert. & Koo		ndifolia×	anglica)	(108)	
ASSYNT	EDDRACHILLIS			FARR		
	media Hayne (108 ty places. Occasio	,		0		dew
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	YTHRACEAE Lythrum L.					
	la (L.) D.A.Webl		ter Pursla	ne		
Muddy:	margins of pools.  ROGART	Very rare.	***			
	Rogart, 1957, M. (Cuthill, 1958, J	,				
	ELAEAGNACE. Hippophaë L.	AE				
	nnoides L. (107, 1 ced. Occasional.	08) Sea-bu	ekthorn			
			GOLSPIE TONGUE	FARR	LOTH	

## ONAGRACEAE

Epilobium L.

E. parviflorum Schreb. (107) Hoary Willowherb or Small-flowered Hairy Willowherb

	d margins of p — ——————————————————————————————————					KILDONAN
	um L. (107, 103) p places. Com		eaved Wil	lowherb		
	AIRG ROGART		GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT E	DDRACHILLIS	DURNESS	TONGUE	FARR		
E. roseum Garden we	Schreb. (107) Sed. Rare.	Small-flow	ered or Pa	le Willo	wherb	
			<del></del>	CLYNE		
E. adnatun	n Griseb. (107) hes. Rare.	Square-st	alked Will	owherb		
						KILDONAN
	m Schreb. (107 ly places. Com		rt-fruited	Willowh	nerb	
	AIRG ROGART DDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
Ditches, m	L. (107, 108) arshes, marginated ROGART	s of ponds DORNOCH	. Common GOLSPIE	, widesp CLYNE FARR		KILDONAN
Wet places	difolium Lam. on mountains					
	AIRG —— DDRACHILLIS	DURNESS	TONGUE			KILDONAN
Wet places	ium Vill. (107, on western mo					
ASSYNT —		DURNESS	TONGUE	FARR		
Introduced $Tongue$ ( $L$	ides Cunn. (108  och Buidhe)			owherb		

Several hybrids have bee	n recorded. Among t	hese are:	
E. alsinifolium×E. anaga E. alsinifolium×E. obscu E. alsinifolium×E. palust E. anagallidifolium×E. o E. anagallidifolium×E. p E. montanum×E. obscur E. obscurum×E. palustre	rum tre bscurum alustre um		
Chamaenerion Ada	ans.		
C. angustifolium (L.) Sco Waste places, woodlands, Frequent in south and ea CREICH LAIRG ROGART ASSYNT EDDRACHILLIS	rocks on mountains	s. Ascends to 140	0 ft. KILDONAN
Circaea L.			
C. lutetiana L. (108) Encl Shady places in woods. R			
ASSYNT ————————————————————————————————————	DURNESS ——		
C. intermedia Ehrh. (107, Shady places amongst roo			e
ASSYNT —— Dornoch (Cambusmore) Golspie (Dunrobin) Assynt (Inchnadamph) Farr (Bettyhill)		FARR	
HALORAGACE. Myriophyllum L.	AE		
M. spicatum L. (108) Spik In streams. Rare.	xed Water-milfoil		
ASSYNT —	DURNESS TONGUE		
M. alterniflorum DC. (107	, 108) Alternate Wa	ter-milfoil	

In streams. Frequent. CREICH LAIRG ROGART KILDONAN DORNOCH GOLSPIE CLYNE LOTH ASSYNT EDDRACHILLIS DURNESS TONGUE FARR HIPPURIDACEAE Hippuris L. H. vulgaris L. (107, 108) Mare's-tail Lochans. Occasional. ROGART DORNOCH ---KILDONAN DURNESS ---FARR EDDRACHILLIS CALLITRICHACEAE Callitriche L. C. stagnalis Scop. (107, 108) Common Water-starwort Ditches and ponds. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. platycarpa Kütz. (108) Various-leaved Water-starwort Ditches. Rare. ASSYNT ---DURNESS ---FARR C. intermedia Hoffm. (107, 108) Intermediate Water-starwort sub sp. hamulata (Kütz.) Clapham Ditches, ponds and streams. Occasional. ROGART ----CLYNE -ASSYNT EDDRACHILLIS FARR C. hermaphroditica L. (107, 108) Autumnal Water-starwort Streams. Rare. KILDONAN **EDDRACHILLIS** FARR CORNACEAE Chamaepericlymenum Hill C. suecicum (L.) Aschers. & Graebn. (107, 108) Dwarf Cornel Mountain moors. Frequent in west, rare in east. CREICH LAIRG LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### ARALIACEAE

Hedera L.

H. helix L. (107, 108) Ivy

Woodlands, hedges, walls, sea-cliffs. Frequent but absent from interior.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### **UMBELLIFERAE**

Hydrocotyle L.

H. vulgaris L. (107, 108) Marsh Pennywort

Bogs and marshes. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### Sanicula L.

S. europaea L. (107, 108) Sanicle Woods. Occasional in west, rare in east.						
		ROGART				 KILDONAN
ASSYNT	EDDRA	CHILLIS	DURNESS	TONGUE	FARR	

## Anthriscus Pers.

A. caucalis Bieb. (107)	Bur Chervil			
Waste places. Casual.				
		GOLSPIE	<del>-,</del>	 KILDONAN
Golspie (Golspie)				
Kildonan (Helmsdale)				

A. sylvestris (L.) Hoffm. (107, 108) Cow Parsley
Fields, roadsides, waste places. Frequent.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

DURNESS TONGUE

FARR

#### Scandix L.

ASSYNT EDDRACHILLIS

S. pecten-veneris L. (108) Shepherd's-needle Field. Old record. Farr (Melvich, 1886, F.J.H.)

# Myrrhis Mill.

			fields. Oc		east, rai	re in nor	th and
CREICH ASSYNT		ROGART	DORNOCH	GOLSPIE TONGUE			KILDONAN
T	orilis A	lans.					
		d roadsid	(107, 108) es. Occasio DORNOCH	nal in eas	t, very ra	are in no	orth. KILDONAN
$\overline{Durness}$	(Balna	keil, 1964,	DURNESS, $A.G.K.$ )				
C	onium I						
		. (107, 103 ccasional.	8) Hemloc  DORNOCH  DURNESS	GOLSPIE	CLYNE FARR		KILDONAN
A	pium L						
A. inund Marshes	_ `	L.) Reichl	o, f. (107)		rshwort		
Dornoch	(Loch	Fleet, 1888	8, J.G., 196	62, V.S.S.)			
C	arum L						
C. carvi Introduc		) Caraway re.	7				
			DURNESS	TONGUE	FARR		
C	onopodi	um Koch					
	oanks ar LAIRG	nd woods.	(107, 108) Common, DORNOCH DURNESS	widesprea GOLSPIE	d. CLYNE FARR	LOTH	KILDONAN

# ${\bf Pimpinella} \ L.$

P. saxifraga L. (107, 108) Dry grassy places and du		_	he north	coast,	rare in east
		GOLSPIE	CLYNE		
	DURNESS	TONGUE	FARR		
${\bf Aegopodium~L}.$					
A. podagraria L. (107, 108 Fields and waste places. I		elder or (	doutweed	l .	
CREICH LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONA
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	$\mathbf{FARR}$		
Crithmum L.					
C. maritimum L. (108) Ro On sea-cliffs. Very rare.	ock Samph	ire			
Farr (Strathy Point, Thre	a mlanta 1	 050 M M	FARR		
Tarr (Straing 1 other, 1 hre	e pumo, r	, m.m	00.11.)		
Oenanthe $L$ .					
O. crocata L. (108) Hemle Marshes. Rare.	ock Water-	dropwort			
ASSYNT —— Assynt (Lochinver, 1944,	A.J.W.)				
Aethusa L.					
A. cynapium L. (107) Foo Waste places. Casual. Golspie (Golspie)	l's Parsley	•			
Ligusticum L.					
L. scoticum L. (108) Scots Sea-cliffs, shingle. Frequen		and wes	t coasts.		
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
Angelica L.					
A. sylvestris L. (107, 108)	Wild Ange	elica	,		

Wet woods, damp grassy places and banks, sea-cliffs. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Peucedanum L. P. ostruthium (L.) Koch (107) Masterwort In old garden. Loth (Loth, 1959, M.McC.W.) Heracleum L. H. sphondylium L. (107, 108) Hogweed or Cow Parsnip Fields, waste places. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Dancus L. D. carota L. (108) Wild Carrot Dunes and sandy fields. Frequent on north and west coasts. ASSYNT EDDRACHILLIS DURNESS TONGUE FARR **EUPHORBIACEAE** Mercurialis L. M. perennis L. (107, 108) Dog's Mercury Sandy places. Very rare. CREICH -FARR Euphorbia L. E. helioscopia L. (107, 108) Sun Spurge Cultivated ground. Frequent in north.

DORNOCH -

DORNOCH -

DURNESS TONGUE

FARR

FARR

ASSYNT EDDRACHILLIS

Cultivated ground. Rare.

E. peplus L. (107, 108) Petty Spurge

EDDRACHILLIS

KILDONAN

	E. cyparissias L. (108) Cypress Spurge Dry grassland. Introduced. Rare.								
		, .		TONGUE	FARR				
	OLYG0 olygonu	NACEA m L.	.E						
Fields, r	oadsides	, waste p	(107, 108) laces. Com	mon.	ss				
ASSYNT	LAIRG EDDRAG		DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN		
	Golspie,	1962, M	(107, 108) .McC.W.)						
P. viviparum L. (107, 108) Alpine Bistort Rocky and grassy places on mountains, coastal pastures, at sea-level in the north. Frequent in north and west.  CREICH LAIRG ROGART KILDONAN									
ASSYNT	EDDRAG	HILLIS	DURNESS	TONGUE	FARR				
		(107, 10ads. Rare	8) Amphik	oious Bisto	ort				
ASSYNT	EDDRAG		DORNOCH DURNESS		CLYNE		KILDONAN		
Cultivat CREICH		id. Comm		GOLSPIE	caria CLYNE FARR	LOTH	KILDONAN		
		L. (108) ad. Rare.	Pale Persi	caria					
ASSYNT	EDDRAG	HILLIS	DURNESS						
P. hydropiper L. (108) Common Water-pepper Wet places. Rare.									
	EDDRAG	HILLIS	Market Name of Street						
	P. convolvulus L. (107, 108) Black-bindweed Cultivated fields. Occasional.								

— — — DORNOCH GOLSPIE CLYNE — KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

P. cuspidatum Sieb. & Zucc. (107, 108) Japanese Knotweed Garden escape.

Creich (Inveran)
Assunt (Lochinver)

## Oxyria Hill

0. digyna (L.) Hill. (108) Mountain Sorrel

Wet rocky places on mountains. At sea-level on north coast. Frequent.

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### Rumex L.

R. acetosella L. sensu lato (107, 108) Sheep's Sorrel

Fields, heaths, waste places. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

R. acetosa L. (107, 108) Common Sorrel

Grassy places. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

R. longifolius DC. (107, 108) Northern Dock or Butter Dock Damp places. Occasional.

CREICH — GOLSPIE CLYNE — KILDONAN — FARR

Farr (Bettyhill, 1889, F.J.H.) Old record.

R. crispus L. (107, 108) Curled Dock

Shingle beaches, dunes, fields, waste places. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

R. obtusifolius L. (107, 108) Broad-leaved Dock

Fields, waste places. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

**R. conglomeratus** Murr. (107, 108) Clustered Dock or Sharp Dock Damp grassy places. Rare.

ASSYNT EDDRACHILLIS — — — — —

## URTICACEAE

Urtica L.

U. urens L. (107, 108) Small Nettle

Fields, waste places. Occasional in the east.

--- DORNOCH GOLSPIE CLYNE --- KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

U. dioica L. (107, 108) Common Nettle or Stinging Nettle

Fields, waste places. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### ULMACEAE

Ulmus L.

U. glabra Huds. (107, 108) Wych Elm

Woodlands. Frequent in the south-east, occasional in north-west.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### MYRICACEAE

Myrica L.

M. gale L. (107, 108) Bog Myrtle

Bogs, wet moors. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## BETULACEAE

Betula L.

B. pendula Roth (107, 108) Silver Birch

Woods and heaths on hills, Occasional.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

B. pubescens Ehrh. (107, 108) Downy Birch

Woods, heaths in wetter areas. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

**B. nana L.** (107, 108) Dwarf Birch Bogs and wet moors. Occasional.

LAIRG —

TONGUE FARR

Lairg (Ben Hee)

Tongue (Ben Loyal, Ben Tongue)

Farr (Ben Klibreck, Strathy Bog)

hybrid B. nana×pubescens occurs on Ben Loyal

Alnus Mill.

A. glutinosa (L.) Gaertn. (107, 108) Alder

Margins of lakes and streams. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### CORYLACEAE

Carpinus L.

C. betulus L. (107, 108) Hornbeam

Introduced.

Golspie (Dunrobin)

Tongue (Borgie)

Farr (Melvich)

Corylus L.

C. avellana L. (107, 108) Hazel

Woods, scrub, hedges. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## **FAGACEAE**

Fagus L.

**F. sylvatica** L. (107, 108) Beech

Woods. Frequent in south-east, sparse in north and west. Introduced.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

Castanea Mill.

C. sativa Mill. (107) Sweet Chestnut In woods, Introduced, Bare.

S. fragili Introduc			ack Willo	W			
CREICH			DORNOCH	GOLSPIE	CLYNE		
ASSYNT	EDDRAG	CHILLIS					
		107, 108) y occasion	Purple Winal.	illow			
CREICH ASSYNT		77(	DURNESS				
		107, 108)		nd houses.	Absent	from int	terior
CREICH			DORNOCH		CLYNE		KILDONAN
ASSYNT		CHILLIS	DURNESS		FARR		
Woods.	Occasion	nal in the		t; sparse ir			
CREICH ASSYNT			DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
sub sp.	atrocine			on Sallow Sobrinho (	107, 108	)	
CREICH			DORNOCH		CLYNE	LOTH	KILDONAN
ASSYNT	EDDRA	CHILLIS	DURNESS	TONGUE	FARR		
			red Willo nd. Comm	w on, widesp	read.		
CREICH	LAIRG		DORNOCH	_		LOTH	KILDONAN
ASSYNT	EDDRAG	CHILLIS	DURNESS	TONGUE	FARR		
S. nigrio			8) Dark-le	aved Willo	w		
Eddrach		chillis ourie)					
		. (107, 10 ountains.		ved Willov	V		
		ROGART	DURNESS	TONGUE	FARR		
sub sp. sub sp.	repens.	Damp and (Sm.) G		illow hs. Commo nus. Dune		nd rocky	$^{r}$ heaths

CREICH ASSYNT	LAIRG EDDRAG	ROGART	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN		
S. lapponum L. (108) Downy Willow Wet rocks on mountains. Rare.									
ASSYNT			DURNESS		FARR				
S. myrsinites L. (107, 108) Whortle-leaved Willow Basic rocks on mountains. Rare.									
ASSYNT			DURNESS				KILDONAN		
S. herbacea L. (107, 108) Dwarf Willow or Least Willow Bare ground and rock-ledges on mountains. Frequent on higher hills.  CREICH LAIRG ROGART — — KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR  S. reticulata L. (108) Net-leaved or Reticulate Willow Mountain screes. Very rare.									
	n screes.	. very rai	e.  DURNESS						
$\overline{Durness}$	(Ben H	ope, 1833	, $J.M.$ , $196$		F.)				
	RICAC oiseleuri								
On dry s									
A	rctostap	hylos Ada	ins.						
Dry rock north co CREICH ASSYNT	xy places ast. Con LAIRG EDDRAG	s on moundamon.  CHILLIS	107, 108) intains and  DURNESS	heaths. D		to sea-le	evel on KILDONAN		
A	icious (.	A. Gray)	Mieu.						

A. alpinus (L.) Nied. (107, 108) Alpine Bearberry or Black Bearberry On barren mountain tops. Frequent on hills in the north and west.

106

Descend CREICH ASSYNT	s to 400 ft on the	e north cor		CLYNE FARR		KILDONAN
C	alluna Salisb.					
	ris (L.) Hull (107) hs, moors, woods LAIRG ROGART EDDRACHILLIS		s. Common GOLSPIE	, widesp CLYNE FARR		KILDONAN
E	rica L.					
	ix L. (107, 108) Ceaths, moors and LAIRG ROGART EDDRACHILLIS		mmon, wi GOLSPIE	despread CLYNE FARR		KILDONAN
	ea L. (107, 108) I ths and moors. C LAIRG ROGART EDDRACHILLIS		idespread. GOLSPIE	CLYNE FARR	LOTH	KILDONAN
V	accinium L.					
	idaea L. (107, 108 and heaths. Comm		у			
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
	llus L. (107, 108) moors and mound LAIRG ROGART EDDRACHILLIS		mon, wide		LOTH	KILDONAN
On high CREICH	nosum L. (107, 10 wet moors. Main LAIRG ROGART	ly in the r	north and	west. Oc		
In bogs.	eddrachillis  occus L. (107) Cra Very rare.  Oykell Bridge, 196			FARR		

# PYROLACEAE Pyrola L.

P. minor L. (107, 108) Common Wintergreen	
Cliff-ledges on hills and in woods. Rare.	
CREICH — GOLSPIE — -	
DURNESS TONGUE ——	
Creich (Ben More Assynt, 1962, D.A.R.)	
Golspie (Golspie, 1888, J.G., 1959, J.A.)	
Durness (Ben Hope, 1900, E.S.M.)	
Tongue (Rhi-Tongue, 1886, A.G.; Ben Loyal, 1887, J.H.)	
T C (107 100) T ( 11 1 TY)	
P. media Sw. (107, 108) Intermediate Wintergreen	
Rocky places on heaths. Rare.	
CREICH — — — —	KILDONAN
Creich (Invershin, 1887, W.C., 1888, J.G.)	
$Kildonan\ (Ord,\ 1959,\ J.A.)$	
Farr (Strath Vagastie, 1899, W.F.M.)	
P. rotundifolia L. (108) Round-leaved Wintergreen	
Cliff-ledges on hills. Very rare.	
DURNESS ——	
Durness (Ben Hope, 1900, E.S.M., 1959, J.A.)	
Orthilia Raf.	
0. secunda (L.) House (107) Serrated Wintergreen	
Pine-woods and rock-ledges on hills. Rare.	
—— DORNOCH GOLSPIE CLYNE ——	KILDONAN
Dornoch (Cambusmore, 1962, A.McG.S.)	
Golspie (Ben Braghie, 1888, J.G.)	
Clyne (Loch Brora, 1962, J.A.)	
Kildonan (Achentoul, 1962, A.McG.S.)	
1100000000 (110000000, 1000, 11.11200.0.)	
Moneses Salisb.	
M suridana (I ) A Char (107) One flavored Wintergroop	
M. uniflora (L.) A. Gray (107) One-flowered Wintergreen	
In pine woods. Very rare.	
— GOLSPIE — —	
0.1 1 1 D T.1 1 1000 T 0.0 1000 T 0.0 1	aar
Golspie (Balblair, 1890, F.C.C., 1897, E.S.M. & F.J.H., 1923, 1960, I.A.: Mound, 1900, T.I.F.)	G.U.D.,
TUBIL I A · Mound TUID 'I' I H' \	

## **EMPETRACEAE** Empetrum L. **E. nigrum** L. (107, 108) Crowberry On moors. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR E. hermaphroditum Hagerup (107, 108) Mountain Crowberry Mountain moors, mainly in the north and west, at the highest altitudes. Frequent. CREICH LAIRG CLYNE -KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR **PLUMBAGINACEAE** Armeria Willd. A. maritima (Mill.) Willd. (107, 108) Thrift sub sp. maritima Salt-marshes, coastal pastures, sea-cliffs and on mountains. Ascends to 3000 ft. Frequent. CREICH DORNOCH GOLSPIE KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# PRIMULACEAE

Primula L.								
P. scotica Hook. (108) Scottish Primrose Pastures by the sea. All along the north coast. Occasional.								
	DURNESS TONGUI	E FARR						
` ' '	P. veris L. (107, 108) Cowslip Sandy pastures by the sea, occasional in north, very rare in the east.							
ASSYNT ——	DURNESS TONGUE	E FARR						
P. vulgaris Huds. (107, 108) Primrose Woods and banks. Common.								
CREICH LAIRG ROGART	DORNOCH GOLSPII	E CLYNE LOTH KILDONAN						
ASSYNT EDDRACHILLIS	DURNESS TONGUI	E FARR						

## Lysimachia L.

L. nemorum L. (107, 108) Yellow Pimpernel Woods and banks. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

L. vulgaris L. (107) Yellow Loosestrife Near old garden. An escape. Dornoch (Badnanish)

A. tenella (L.) L. (108) Bog Pimpernel

#### Trientalis L.

T. europaea L. (107, 108) Chickweed Wintergreen Woods and moorland. Widely but sparsely distributed. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT — DURNESS TONGUE FARR

## Anagallis L.

#### Glaux L.

G. maritima L. (107, 108) Sea-milkwort Salt marshes, sandy and stony shores. Frequent.

—— — DORNOCH GOLSPIE — — — — — ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### OLEACEAE

Fraxinus L.

F. excelsior L. (107, 108) Ash

Woodlands. Frequent in east, sparse (introduced) in north-west.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# Ligustrum L.

L. vulga Introdu		07, 108) V	Vild Prive	t			
CREICH		ROGART		GOLSPIE		LOTH	
ASSYNT		noodui		TONGUE	FARR	2011	
		ANACEA um Hill	E				
			ilmour (10 e sea. Ver DORNOCH	y rare.	Centau	ry 	
Dornoch	(Dorne	och Links,	south shor	e of Loch	Fleet)		
G	entiane	lla Moencl	n				
	LAIRG	dunes. Fre	quent by to dornoch durness	the sea.	ntian CLYNE FARR	LOTH	KILDONAN
Dunes a	nd sand	ly pasture	Autumn G	ea.	Felwort		
sub sp. (	urucean	a Pritchar	d (107, 10	•	OT TOTE		
			DORNOCH		CLYNE		
sub sp. s	septentr	ionalis (D	ruce) Prit	tongue chard (107	FARR 7, 108)		
ASSYNT	EDDRA	CHILLIS	DURNESS	TONGUE	FARR		
G. pulch	ra Brui	nmet & H	[eywood (]	108)			
ASSYNT							
N	IENYA	NTHAC	EAE				
7	Ienyant	hes L.				,	
			argins. Co				
CREICH	LAIRG	ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# BORAGINACEAE

Symphytum L.

S. officinale L. (107, 108)	Common	Comfrev			•
Wet grassy places and di					
	DORNOCH		CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS		TONGUE	FARR		
S. tuberosum L. (107) Tu	berous Cor	nfrey			
Roadside. Rare.					
					KILDONAN
$Kildonan\ (Kinbrace)$					
Pentaglottis Tausc	h				
P. sempervirens (L.) Tau	sch (107. 1	08) Green	Alkanet		
Hedges and roadsides. O		,			
LAIRG		GOLSPIE		LOTH	KILDONAN
ASSYNT		TONGUE			
Lycopsis L.					
T . T /10= 100)	D 1				
L. arvensis L. (107, 108)					
In cultivated fields. Freq		C OT CDTT	OF TOTAL	* 0.00**	*****
ASSYNT EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
ASSINI EDDRACHILLIS	DULNESS	TONGUE	FARA		
Myosotis L.					
M. scorpioides L. (107, 10	18 \ Water	Forgot mo	not		
In wet places, ditches, po			-1100		
CREICH LAIRG ROGART	-		CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS		FARR		
M. secunda A. Murr. (107	, 108) Cre	eping Forg	get-me-n	ot	
In wet peaty places. Con		1 0 0			
CREICH LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
M coornitors K E Solar	14 /107 1/	)0 \ Tuft ~ 3	Toward.	ma not	
M. caespitosa K. F. Schu In marshes and ponds. F					
CREICH LAIRG ROGART	-		CLYNE		KILDONAN
ASSYNT EDDRACHILLIS	DURNESS		FARR	LOIL	ALIDONALI
	200211200	101.001	T ZETVIV		

M. arvensis (L.) Hill (107) In cultivated fields, dunes					
	DORNOCH DURNESS	GOLSPIE	_	LOTH	KILDONAN
M. discolor Pers. (107, 108 Yellow and Blue Forget-In dry bare waste places.	ne-not	g Forget-	me-not o	or	
CREICH LAIRG ROGART		GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
M. ramosissima Rochel (1 Waste places. Rare.	07) Early	Forget-m	e-not		
		GOLSPIE	CLYNE		
Golspie (Golspie) Clyne (Brora)			understättliche Verbeite		
Mertensia Roth					
M. maritima (L.) Gray (1.) On coastal shingle. Rare.  ———————————————————————————————————	Decreasin	g. GOLSPIE TONGUE	FARR	LOTH	ster Plant KILDONAN
Golspie (Dunrobin, 1903, Loth (Loth, 1965, M.M., Kildonan (Helmsdale, 184 Assynt (Inverkirkaig, 188 Eddrachillis (Sandwood, 1 Tongue (Skerray, 1956, J. Farr (Kirtomy, 1895, E.S.	one plant) 15, D.R., n 6, A.G.; C 1919, now e 1.A., two pla	ow extinct lachtoll, 19 extinct) ants)	) 956, <b>J</b> .A.	)	act)
CONVOLVULAC Convolvulus L.	EAE				
C. arvensis L. (107) Field Recorded by H. C. Watso					
Calystegia R. Br.					
C. sepium (L.) R. Br. (10 Hedges and waste places	. Occasion	al.	weed or	Larger I	
ASSYNT —	DORNOCH		FARR		KILDONAN

C. pulchra Brummitt & Heywood (108) Hairy Bindweed Assynt (Inchnadamph)

# SOLANACEAE

Lycium L.

L. chinense Mill. (108) China Teaplant or Duke of Argyll's Tea-plant On wall at roadside. An escape.

Durness (Balnakiel)

## Hyoscyamus L.

H. niger L. (107) Henbane In waste ground. Casual. Golspie (Golspie, 1898, E.S.M. & W.A.S.)

#### Solanum L.

S. dulcamara L. (107, 108) Bittersweet On waste ground. An escape. Creich (Bonar Bridge, 1962, J.A.) Assynt (Lochinver, 1944) Farr (Bettyhill, 1897, E.S.M.)

## **SCROPHULARIACEAE**

Verbascum L.

V. thapsus L. (107) Great Mullein or Aaron's Rod On waste ground. Casual. Golspie (Golspie, 1888, J.G., 1898, E.S.M. & W.A.S.)

#### Linaria Mill.

L. vulgaris Mill. (107, 108) Common Toadflax
On railway banks. Occasional.

CREICH LAIRG ROGART DORNOCH GOLSPIE — KILDONAN
FARR

# Cymbalaria Hill

C. muralis Gaertn., Mey. & Scherb. (107, 108) Ivy-leaved Toadflax On walls. Garden escape.

GOLSPIE EDDRACHILLIS FARR Golspie (Golspie, Little Ferry) Eddrachillis (Scourie) Farr (Melvich) Scrophularia L. S. nodosa L. (107, 108) Common Figwort Damp woods, banks and ditches. Occasional in south and east. Very local in north and west. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS FARR Mimulus L. M. guttatus DC. (107, 108) Monkeyflower Banks of streams. Introduced. Established in many localities. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR M. luteus L. (107, 108) Blood-drop-emlets Banks of streams. Introduced. Much less frequent than M. guttatus. LATRG -ASSYNT DURNESS TONGUE FARR M. moschatus Dougl. ex Lindl. (107, 108) Musk Banks of streams and ditches. Introduced. Occasional, near gardens. CREICH LAIRG ROGART ---GOLSPIE KILDONAN DURNESS TONGUE FARR Erinus L. E. alpinus L. (108) Fairy Foxglove

E. alpinus L. (108) Fairy Foxglove Introduced. Farr (Bettyhill, 1959, D.P.Y.)

## Digitalis L.

**D.** purpurea L. (107, 108) Foxglove

In woods, heaths and banks. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### Veronica L.

V. beccabunga L. (107, 108) Brooklime

In ditches and streams.		COLCDIA	OT TIME	TOWT	TTT DOX 131
ASSYNT EDDRACHILLIS	DORNOCH DURNESS	GOLSPIE	CLYNE FARR	LOTH	KILDONAN
V. anagallis-aquatica L. ( In streams. Rare.  ———————————————————————————————————	DURNESS	Water-spe	edwell		—
Danies (Danienten, Briot	500 )				
V. scutellata L. (107, 108					
Wet places, ditches, pond	_	-			
	DORNOCH		CLYNE	LOTH	KILDONAN
ASSYNT	DURNESS	TONGUE	FARR		
V. officinalis L. (107, 108	) Heath Sr	llowboo			
Dunes, heaths and woods	,		ad		
	DORNOCH			T OTTT	TITE DON'T AND
	DURNESS		CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
V. chamaedrys L. (107, 10 Woods, pastures, dunes a				espread.	
•	DORNOCH		CLYNE	-	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS		FARR		
V. serpyllifolia L. (107, 10 sub sp. serpyllifolia Grasslands and waste pla					
CREICH LAIRG ROGART			CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS		FARR		
sub sp. humifusa (Dickso					
Damp places on mountain		nal.			
CREICH					KILDONAN
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
V. arvensis L. (107, 108) Cultivated fields. Commo CREICH LAIRG ROGART	n.		CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
V. hederifolia L. (107, 108 In waste places. Occasion		red Speedv	vell		
	DORNOCH				KILDONAN
ASSYNT			FARR		

Buxbau	a Poir. (107, 108 m's Speedwell		Field-spee	edwell o	r	
	rated fields. Frequency		0010010	OT 1777E	T OMET	WW D 037 137
ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
	Fr. (108) Grey Fround. Rare.	Field-speed	well			,
		DURNESS		FARR		
	tis L. (107, 108) 0 ed ground. Occas		l-speedwel	l		
	LAIRG ——	DORNOCH				KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	mis Sm. (107, 108 ides amongst gra		rare.	——- FARR		KILDONAN
P	edicularis L.					
	ris L. (107, 108) : nes. Common.	Marsh Lou	sewort or	Red-rat	tle	
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	ica L. (107, 108) eaths and moors.			d.		
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
R	hinanthus L.					
	nus (Schönh) Ob ettyhill, 1923, G.C		Greater Y	Tellow-ra	attle	
	L. (107, 108) Ye daces. Common.	ellow-rattle	)			
ASSYNT sub sp. s	LAIRG ROGART EDDRACHILLIS stenophyllus (Schurassy places. Com		TONGUE	CLYNE FARR 108)	LOTH	KILDONAN

CREICH LAIRG ROGA	ART DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILL	IS DURNESS	TONGUE	FARR		
sub sp. monticola (St	erneck) O. Scl	hwarz (10'	7, 108)		
Grassy places. Comm	on.				
CREICH	- DORNOCH	GOLSPIE			
ASSYNT -	DURNESS	TONGUE	FARR		
sub sp. borealis (Stern	neck) Druce. (	(107, 108)			
Grassy places on hills	, at sea-level of	on north c	oast. Oc	easional	
CREICH					KILDONAN
ASSYNT EDDRACHILL	IS DURNESS	TONGUE	FARR		
Melampyrum I					
M. pratense L. (107, 1	08) Common	Cow-whea	n.t.		
sub sp. pratense var h		0011 111100	••		
Woods and heaths. C		nread			
CREICH LAIRG ROGA		_	CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILL			FARR		
Euphrasia L.					
E. officinalis L. (107,	108) Evebrigh	nt.			
Heaths, moors and so					
CREICH LAIRG ROGA			CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILL			FARR		
E. micrantha $\times$ nemor	osa Durnoss				
E. meranina / nemor	osa Durness.				
E. scottica Wettst. (1	07, 108)				
On wet moors. Not u		he north a	and west,	rare in	the east.
Ascends to 2000 ft or					
CREICH LAIRG -	DORNOCH				
ASSYNT EDDRACHILL	IS DURNESS	TONGUE	FARR		
E. frigida Pugsl. (107)			C T	3.6	D
Rocky places on mou	ntains. Ascend	ds to 2500	it on Be	n More	. Kare.
CREICH —					
ASSYNT —	DURNESS	TONGUE	FARR		
Creich (Ben More)					
Assynt (Craig Liath)					
Durness (Ben Hope)					
Tongue (Ben Loyal)					
Farr (Ben Klibreck)					
E. frigida×micrantha	. Ben Loval				
E. frigida × scottica. H					
0					

E. foulaensis Townsend e			
Coastal pastures and salt	marshes. (	Occasional	•
	DORNOCH		
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR
Dornoch (Dornoch, Loch).	Fleet)		
$Eddrachillis\ (Handa)$			
Durness (Smoo)			
Tongue (Kyle of Tongue)			
Farr (Invernaver, Bettyhi	ill, Farr, St	rathy & A	Melvich)
<ul><li>E. foulaensis×marshallii.</li><li>E. foulaensis×nemorosa.</li></ul>			
E. rotundifolia Pugsl. (10: Grassy sea-cliffs. Very ra			
EDDRACHILLIS Eddrachillis (Sandwood) Durness (Balnakeil) Tongue (Scullomie) Farr (Port Skerra)  E. marshallii Pugsl. (108) Grassy places on sea-cliffi			h coast sparse on west
ASSYNT EDDRACHILLIS	DURNESS		FARR
E. marshallii×micrantha E. marshallii×brevipila. E. marshallii×nemorosa.	Durness an	d Farr	ess and Tongue
E. curta (Fr.) Wettst. (10	07, 108)		
Pastures near the sea and		ain slopes	. Occasional.
	DORNOCH	-	
ASSYNT		TONGUE	FARR
E. curta × brevipila. Tong	gue and Doi	$\operatorname{rnoch}$	
E. nemorosa (Pers.) Wall Pastures, dunes, heaths.	Occasional.		
	DORNOCH		CLYNE -
EDDRACHILLIS	DURNESS	TONGUE	FARR
E. nemorosa × brevipila. 1 E. nemorosa × marshallii.			

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E. confusa Pugsl. (107, 108) Moorland and coastal pastures. Occasional. DORNOCH GOLSPIE CREICH CLYNE ASSYNT DURNESS TONGUE FARR E. brevipila Burnat & Gremli (107, 108)

Pastures, fields and roadsides. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

E. brevipila × micrantha. Assynt, Eddrachillis, Durness, Farr, Dornoch E. brevipila × curta. Dornoch

var. reayensis Pugsl. (108) Pastures, Occasional,

ASSYNT EDDRACHILLIS DURNESS TONGUE Assynt (Achmelvich) Eddrachillis (Oldshoremore) Tonque (Melness) Farr (Bettyhill, Farr, Armadale & Port Skerra)

- E. brevipila var. reayensis × marshallii. Assynt and Farr
- E. brevipila var. reayensis × micrantha. Assynt
- E. brevipila var. reayensis × nemorosa. Farr and Tongue

Odontites Ludw.

0. verna (Bellardi) Dumort sub sp. verna (107, 108) Red Bartsia Cultivated fields and roadsides in coastal areas. Frequent. CREICH LAIRG DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## OROBANCHACEAE

Orobanche L

**0.** alba Steph. ex Willd. (108) Thyme Broomrape or Red Broomrape On sea cliffs. Very rare. Eddrachillis (Oldshoremore)

## LENTIBULARIACEAE

Pinguicula L.

P. lusitanica L. (107, 108) Pale Butterwort In bogs. Frequent in the west.

CREICH	LAIRG -				KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR	
	ris L. (107, 108) of the heaths. Commo		ead. GOLSPIE	CLYNE LOTH	KILDONAN
τ	Iltricularia L.				
_	ecta Lehm. (108) ans. Rare.	Greater Bla	${f adderwort}$		
Eddrack Durness	EDDRACHILLIS (Little Assynt, 19 cillis (Sandwood, 18 c) (Farrmheal, 196	1952, M.M. 0, D.A.R.)	cC.W.)		
	media Hayne (108 s and lochans. Fre				
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR	
	or L. (108) Lesser ans. Rare.	Bladderwo	ort		
	EDDRACHILIS (1833, R.G., Achi hillis (Scourie, 193			7.)	
_	LABIATAE Mentha L.				
	ensis L. (107, 108) evated fields. Rare LAIRG ——		t —— TONGUE	FARR	KILDONAN
Near ga	rticillata L. (108) ardens. Local. ( Tongue)				
Sides of	ntilis L. (108) f ditches. Local. (Stoer, 1944, A.J.	.W.)			

	tica L. (107, 108) marshes, stream			t.		
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
M.×pip	erita L. (108) Pep erita	permint				
	ditches. Local.					
	(Tongue)					
Farr (B	Pettyhill, Melvich)					
_	ta L. (107, 108) S laces. An escape.	Spear Mint				
	ROGART	DORNOCH		CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS		FARR		
Damp p	difolia Opiz (107) laces. Local. n ( <i>Helmsdale</i> )					
M. × nili:	aca Jussex Jacq.	(107, 108)				
	laces. Local.	(200, 200)				
	trath Brora, 1948					
Assynt ( Farr (M	Lochinver, 1944,	A.J.W.				
1 an (19	(ecoch)					
L	ycopus L.					
_	<b>aeus</b> L. (107, 108 laces. Rare.	) Gipsywo	rt			
	EDDRACHILLIS	DURNESS			LOTH	KILDONAN
	EDDIMONIEDIS	DUMBESS				
T	hymus L.					
T. druce	i Ronn. (107, 108	) Wild Th	vme			
	ssland, dunes, hea			mon, wie	despread	
CREICH		DORNOCH			LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		

Acinos Mill

A. arvensis (Lam.) Dandy (107) Basil Thyme

On railway-bank. Casual. Creich (Invershin, 1890, E.S.M. & F.J.H.)

## Prunella L.

P. vulgaris L. (107, 108) Selfheal

Grassy places. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# Stachys L.

S. arvensis (L.) L. (107, 108) Field Woundwort In cultivated fields. Rare.

--- KILDONAN

EDDRACHILLIS DURNESS TONGUE FARR

Kildonan (Helmsdale, 1889, W.R.L.)

Eddrachillis (Kinlochbervie, 1952, M.McC.W.)

Durness (Durness, 1887, E.S.M.)

Tongue (Tongue, 1833, H.C.W.)

Farr (Bettyhill, 1890, W.F.M.)

S. palustris L. (107, 108) Marsh Woundwort

Ditches, marshes. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

S. sylvatica L. (107, 108) Hedge Woundwort Woods and damp shady places. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

S.×ambigua Sm. (S. palustris×sylvatica) (107, 108)

Ditches. Occasional.

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## Lamium L.

L. amplexicaule L. (107, 108) Henbit Dead-nettle

Cultivated fields. Occasional.

CREICH LAIRG —— DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

L. molucellifolium Fr. (107, 108) Northern Dead-nettle

Cultivat	ed fields. Occasion	nal.				
	LAIRG —	<del></del> ·		CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	dum Vill. (108) C	ut-leaved	Dead-nett	le		
				FARR		
	reum L. (107, 10sed fields and was					
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
	n L. (108) White blaces. Casual.	Dead-nett	le			
Durness	EDDRACHILIS villis (Kinlochberv (Durness) (Tongue, 1845, H		I.McC.W.			
0	Galeopsis L.					
	hit L. (107, 108) ( .nd waste places.		lemp-nett	le		
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS			CLYNE FARR	LOTH	KILDONAN
	Boenn. (107, 108 and waste places.					
		DURNESS		FARR		
	osa Mill. (108) La and waste places.		ed Hemp-	nettle		
	EDDRACHILLIS	DURNESS				
	Glechoma L.					
	racea L. (107, 108 Occasional.	3) Ground	Ivy			
CREICH	ROGART	DURNESS	GOLSPIE	CLYNE		

## Scutellaria L.

#### S. galericulata L. (107, 108) Skullcap Wet grassy places. Occasional. CREICH -ROGART ASSYNT EDDRACHILLIS DURNESS TONGUE Teucrium L. T. scorodonia L. (107, 108) Wood Sage Woods, dry heaths, dunes and screes. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Ajuga L. **A. reptans** L. (107, 108) Bugle Damp woods and banks. Ascends to 1400 ft on Ben Griam. Occasional. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE -KILDONAN ASSYNT EDDRACHILLIS DURNESS ---FARR A. pyramidalis L. (107, 108) Pyramidal Bugle Ledges on basic rocks. Occasional. CREICH -DORNOCH GOLSPIE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS ----FARR PLANTAGINACEAE Plantago L. P. major L. (107, 108) Greater Plantain Fields, roadsides and waste places. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR P. lanceolata L. (107, 108) Ribwort Plantain Grassy places, dunes, roadsides and waste places. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

Salt marshes, sea-cliffs, dunes, rocks and pastures on mountains.

P. maritima L. (107, 108) Sea Plantain

P. coronopus L. (107, 108 Sandy and stony places			
ASSYNT EDDRACHILLIS	DORNOCH GOLSPIE DURNESS TONGUE	CLYNE FARR	KILDONAN
Littorella Berg.			
L. uniflora (L.) Aschers. Sandy and gravelly shore			
CREICH LAIRG —— ASSYNT EDDRACHILLIS	GOLSPIE DURNESS TONGUE	CLYNE ——— FARR	KILDONAN
CAMPANULAC Campanula L.	EAE		
C. latifolia L. (107) Gian Woods. Rare. Golspie (Dunrobin)	t Bellflower		
C. rapunculoides L. (107) Near gardens. Escape. Dornoch (Ferrytown) Kildonan (Kildonan)	Creeping Campunul	a or Creeping B	ellflower
C. rotundifolia L. (107, 10) Pastures, banks, dunes, l CREICH LAIRG ROGART ASSYNT EDDRACHILLIS		bell CLYNE LOTH FARR	KILDONAN
Lobelia L.			
L. dortmanna L. (107, 10 Gravelly margins of lake LAIRG ROGART ASSYNT EDDRACHILLIS	s. Common.	CLYNE	KILDONAN
RUBIACEAE Sherardia L.			
S. arvensis L. (107, 108) Fields. Occasional.	Field Madder		
CREICH — ROGART ASSYNT —	DURNESS TONGUE	CLYNE	KILDONAN

# Galium L.

G. odoratum (L.) Scop. (107, 108) Woodruff Woods and shady banks. Occasional.  ———————————————————————————————————	FARR	KILDONAN
G. boreale L. (107, 108) Northern Bedstraw Banks of streams. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS ——		KILDONAN
G. mollugo L. sub sp. mollugo (107) Great H. Roadsides. Introduced. Rare.  LAIRG ROGART DORNOCH	edge Bedstraw	KILDONAN
sub sp. erectum Syme. (107) Erect Hedge Be Golspie (Golspie, 1903, G.C.D.)	dstraw	
G. verum L. (107, 108) Lady's Bedstraw Dry grassy places and dunes. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS TONGUE	CLYNE LOTH	KILDONAN
G. saxatile L. (107, 108) Heath Bedstraw Grassy places and heaths. Common, widespre CREICH LAIRG ROGART DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS TONGUE	ad. CLYNE LOTH FARR	KILDONAN
G. sterneri Ehrend. (107, 108) Limestone Bed On calcareous grassland on hills. Occasional.	straw or Slende	r Bedstraw
ASSYNT EDDRACHILLIS DURNESS —	FARR	KILDONAN
G. palustre L. (107, 108) Common Marsh-beds Marshes and ditches. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS TONGUE	straw CLYNE LOTH FARR	KILDONAN
G. aparine L. (107, 108) Cleavers or Goosegra Roadsides, waste places, shingle beaches. Con		
CREICH LAIRG ROGART DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS TONGUE	CLYNE LOTH FARR	KILDONAN
		10=

## CAPRIFOLIACEAE

Sambueus L.

S. ebulus L. (107) Dwarf Elder or Danewort At roadside, Introduced, Rare, Golspie (Golspie, 1962, M.McC.W.)

S. nigra L. (107, 108) Elder

Amongst scrub, roadsides and waste places. Always near houses.

Very sparse in the north and west. Introduced.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE

## Viburnum L.

V. opulus L. (10 Amongst scrub.		uelder Ros	se		
CREICH -				 	
ASSYNT EDDRA	CHILLIS	DURNESS			
Creich (Rosehall	)				
Assynt (Inchnad	lamph)				
Eddrachillis (Gl	$end\bar{h}u)$				
Durness (Koelde	(le)				
· ·					

# Symphoricarpos Duham

S. rivularis Suksd. (107, 108) Snowberry Garden escape. Kildonan (Suisgill) Tongue (Tongue)

#### Linnaea L.

L. borealis L. (107) Twinflower or Linnaea In coniferous woods. Very rare. GOLSPIE

Golspie (Golspie, 1888, J.G., 1960, J.A.)

## Lonicera L.

EDDRACHILLIS

L. periclymenum L. (107, 108) Honeysuckle Woods, hedges. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN DURNESS TONGUE

FARR

ASSYNT

## ADOXACEAE

Adoxa L.

A. moschatellina L. (108) Moschatel or Townhall Clock Assynt (Knockan, 1895, G.S.D.) No recent record.

## VALERIANACEAE

Valerianella Mill.

V. locus Dunes a			07, 108) Co	ommon Co	rnsalad	or Lam	b's Lettuce
				GOLSPIE			
$\overline{Golspie}$		CHILLIS even, 188	DURNESS $(S, J.G.)$				
v	aleriana	L.					
V. officia	nalis L.	(107, 108	) Common	Valerian			
			ib. Commo				
CREICH	LAIRG	ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRA	CHILLIS	DURNESS	TONGUE	FARR		
	IPSAC Inautia	ACEAE L.					
	, ,	Coult. (1 s. Occasio	08) Field S onal.	Scabious			
			DURNESS	TONGUE	FARR		
S	uccisa H	[aller					

S. pratensis Moench (107, 108) Devil's-bit Scabious

Damp pastures, heaths. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### COMPOSITAE

Senecio L.

S. jacobaea L. (107, 108) Common Ragwort
Pastures, dunes, waste places. Common, widespread.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR
var. discoideus Koch. On the north coast.

	icus Hill (107, 10 , ditches, banks c					
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS			CLYNE	LOTH	KILDONAN
Open gr	assy places. Frequency RAIRG ROGART	uent in the	e east, spai GOLSPIE	rse in no		west. KILDONAN
	us L. (107) Stick laces. Occasional		el or Stink	ing Gro	undsel	
		DORNOCH	GOLSPIE			KILDONAN
	ris L. (107, 108) ( round, gardens, c			mon.	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS		FARR	LOIH	RIEDONAL
Т	ussilago L.					
Waste p	a L. (107, 108) Claces, screes, dun	es, banks,	-			
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
P	etasites Mill.					
On road	(L.) Gaertn. (107 side. Garden esca ( <i>Dornoch</i> )		utterbur			
F	ilago L.					
	anica (L.) L. (107 ths. Very rare.	) Common	Cudweed			
Clyne (H	Brora)			CLYNE		
	na (Sm.) Pers. (10 eaths and fields.			or Sma	ll Cudwe	eed
-	LAIRG ROGART			CLYNE		KILDONAN

# Gnaphalium L.

G. sylvaticum L. (107, 108) Heath or Wood Cudweed Heaths and woods. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR G. supinum L. (107, 108) Dwarf Cudweed Bare places on mountain tops. Frequent. CREICH ASSYNT EDDRACHILLIS DURNESS TONGUE FARR G. uliginosum L. (107, 108) Marsh Cudweed Damp fields and heaths. Occasional. KILDONAN ASSYNT EDDRACHILLIS TONGUE FARR Antennaria Gaertn. A. dioica (L.) Gaertn. (107, 108) Mountain Everlasting or Cat's-foot Dry pastures, heaths, dunes and on mountains. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Solidago L. S. virgaurea L. (107, 108) Goldenrod Dunes, pastures, banks and rocks. From sea-level to 3000 ft. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Aster L. A. tripolium L. (107, 108) Sea Aster Salt-marshes, Occasional, CREICH -KILDONAN DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Bellis L. **B.** perennis L. (107, 108) Daisy Grasslands, roadsides. Common, widespread.

LAIRG ROGART DORNOCH GOLSPIE

DURNESS TONGUE

EDDRACHILLIS

CREICH

ASSYNT

KILDONAN

CLYNE LOTH

FARR

# Eupatorium L.

E. cannabinum L. (108) Hemp-agrimony Farr (Bettyhill, 1833, H.C.W.)

## Anthemis L.

A. tinctoria L. (107) Yellow Chamomile On railway bank. Casual. Creich (Invershin, 1890, E.S.M. & F.J.H.)

#### Achillea L.

A. millefolium L. (107, 108) Yarrow

Fields, roadsides, dunes. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

A. ptarmica L. (107, 108) Sneezewort

Damp meadows, ditches. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# Tripleurospermum Schultz Bip.

T. maritimum (L.) Koch (107, 108) Scentless Mayweed

sub sp. maritimum

Dunes, shingle beaches and sea-cliffs. Frequent.

— DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

sub sp. inodorum (L.) Hyland. ex Vaarama

Fields and waste places. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

DURNESS TONGUE FARR

## Matricaria L.

M. recutita L. (107) Scented Mayweed or Wild Chamomile Railway bank. Casual. Golspie (Golspie, 1888, J.G.)

M. matricarioides (Less.) Porter (107, 108) Pineapple weed or Rayless Mayweed Waysides, waste places, fields, Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# Chrysanthemum L.

C. segetum L. (107, 108) Corn Marigold

In cultivated fields. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

C. leucanthemum L. (107, 108) Oxeye Daisy

Fields, waysides, dunes. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

C. parthenium (L.) Bernh. (107, 108) Feverfew

Roadsides, walls. Occasional.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHULIS DURNESS TONGUE FARR

C. vulgare (L.) Bernh. (107, 108) Tansy

Waste places, near gardens. Occasional.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## Artemisia L.

A. vulgaris L. (107, 108) Mugwort

Fields and waste places near the sea. Occasional.

A. absinthium L. (108) Wormwood

In old neglected garden.

Assynt (Achmelvich)

#### Arctium L.

A. minus Bernh, Lesser Burdock

sub sp. nemorosum (Lejeune) Syme (107, 108)

Waste places. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# Carduus L.

	florus Curt. (107)		nal.			KILDONAN
Casual (	as L. (108) Musk (one plant) (Lochinver)	Thistle				
C	irsium Mill.					
	re (Savi) Ten. (10) laces, roadsides.  LAIRG ROGART  EDDRACHILLIS	Common,	widespread GOLSPIE		LOTH	KILDONAN
	tre (L.) Scop. (10 , ditches, wet wo LAIRG ROGART EDDRACHILLIS	ods. Comm	on, wides		LOTH	KILDONAN
C. arven	se (L.) Scop. (10) waste places. Com LAIRG ROGART EDDRACHILLIS	7, 108) Cre	eping This	stle	LOTH	KILDONAN
	ophyllum (L.) Hil ces by streams, o ————————————————————————————————————	, ,	nd hills. Fi	requent.	tle	
S	aussurea DC.					
Mountai CREICH	n (L.) DC. (107, 1 n rocks and cliffs	. Descends	to 400 ft.	Occasio		surea KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
C	entaurea L.					
	osa L. (108) Great nd dunes. Occasio					
	EDDRACHILLIS	DURNESS	TONGUE	FARR		

	us L. (107, 108) C					
Cornfield	ds. Rare. Extinct	ın v.c. 108	GOLSPIE		LOTH	KILDONAN
ASSYNT				FARR		
Assynt (	Inchnadamph, 18	99, G.E.S.	)			
Farr (B	ettyhill, 1888, W.	C.				
	or 1 *	/10= 100\	0 1	r. <del>z</del>	,	
	L. sub sp. nigra	(107, 108)	Common 1	Knapwe	ed or	
	Knapweed es, fields. Commo	n				
CREICH		DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
L	apsana L.					
Ic comm	nunis L. (107, 108	Ninnlew	ort.			
	es, waste places a					
CREICH	_	DORNOCH	_	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
•						
Н	lypochoeris L.					
H. radic	ata L. (107, 108)	Cat's-ear				
	s, dunes, roadside		ı, widespr	ead.		
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
т	eontodon L.					
L	eomodon L.					
L. autun	nnalis L. (107, 10	8) Autumi	n Hawkbit	;		
Pastures	s, dunes, roadside	s. Commor	n, widespre	ead.		
CREICH		DORNOCH		CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
var ant	umnalis. Roadsid	es and wal	ls mainly	in the es	ast.	
	tensis. Pastures in					
	plex. Short coasts					
	lus L. (107) Roug	gh Hawkbi	t			
Pastures						
	ROGART					KILDONAN
Rogart (	Rogart)					
	n (Helmsdale)					

L. taraxacoides (Vill) Mérat (108) Hairy Hawkbit or Lesser Hawkbit On sandy ground. Rare. Eddrachillis (Sheigra, 1966, A.G.K.)

# Tragopogon L.

Mycelis Cass.

M. muralis (L.) Dumort. (107) Wall Lettuce Roadside. Casual. Dornoch (Dornoch, 1966, J.A.)

#### Sonchus L.

S. arvensis L. (107, 108) Field Milk-Thistle or Perennial Sow-thistle Cultivated fields, wet sandy shores. Occasional.

CREICH —— DORNOCH GOLSPIE —— KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

S. oleraceus L. (107, 108) Smooth Sow-Thistle
Cultivated fields and waste places. Frequent.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

S. asper (L.) Hill (107, 108) Prickly Sow-thistle Cultivated fields, waste places. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## Hieracium L.

Sub-genus **Pilosella** (Hill.) S. F. Gray Section **Pilosellina** Pugsl.

H. pilosella L. (107, 108) Mouse-ear Hawkweed
Grassy places, banks, walls, heaths. Common, widespread.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

var. concinnatum F. J. Hanb. (108)

Assynt (Knockan, 1958, M.McC.W., Inchnadamph, 1959, C.W., Culkein-Drumbeg, 1964, A.G.K.) Eddrachillis (Oldshoremore, 1964, A.G.K.) Durness (Balnakeil, 1959, C.W.) Farr (Farr Bay, 1959, C.W.)

var. tricholepium (Neag & Petes) Pugsl. (108) Assynt (Inchnadamph, 1959, C.W., Culkein-Drumbeg, 1964, A.G.K.)

Sub-genus **Hieracium** Section **Alpina** Fries

H. holosericeum Backh. (107, 108)

Grassy slopes and rock-ledges at an altitude of 2500 ft or more. Creich (Ben More Assynt, 1827, R.G.)
Assynt (Inchnadamph, 1900, T.J.F., Glass Beinn, 1960, A.G.K.)
Durness (Ben Hope, 1888, J.C.M.)

H. eximium Backh. var. tenellum Backh. (Druce) (108) On rocky ledges over 2000 ft. Farr (Ben Klibreck, 1897, E.S.M.)

H. gracilentum Backh. (108)

On rocky ledges or grassy slopes usually over 2500 ft. Assynt (Canisp, 1890, E.S.M.) Eddrachillis (Craig Riabbach and An Grianan, 1964, A.G.K.)

**H. globosiflorum** Pugsl. var. **globosiflorum** Pugsl. (108) On rocky ledges and grassy slopes usually over 2500 ft. Assynt (Canisp, 1890, E.S.M.)
Durness (Ben Hope, 1900, E.S.M.)

H. marginatum P. D. Sell & C. West (108) On rocky ledges usually over 2500 ft. Tongue (Ben Loyal, 1897, E.S.M.) Farr (Ben Klibreck, 1897, E.S.M.)

H. pseudocurvatum (Zahn) Pugsl. (108) On rocky ledges or grassy slopes usually over 2500 ft. Durness (Ben Hope, 1890, E.F.L.) Tongue (Ben Loyal, 1897, E.S.M.)

Section Subalpina Pugsl.

H. lingulatum Backh. ex Hook e Arnott (108)

Rocky ledges and stream sides over 2500 ft.

Assynt (Hills round Inchnadamph, 1908, E.S.M., 1957, R.C.P.)

Durness (Ben Hope, 1888, F.J.H., Foinaven and Carnstackie, 1964, A.G.K.)

Tongue (Ben Loyal, 1897, E.S.M., 1953, C.W.)

# H. hyparcticoides Pugsl. (108)

Rocky banks by streams.

Assynt (Hills and streams round Inchnadamph, 1890 & 1908, E.S.M., 1957, C.W.)

# H. callistophyllum F. J. Hanb. (107)

On stream sides and rocky ledges.

Creich (Oykell Bridge and Lubcroy, 1908, E.S.M.)

## Section Cerinthoidea Fries

# H. anglicum Fries (107, 108)

Rocky ledges, grassy banks and stream sides.

Dornoch (Cambusmore, 1962, M.McC.W.)

Assynt (Knockan, Inchnadamph, 1908, E.S.M.)

Durness (Koeldale, Ben Hope, 1953, M.C.F.P. & K.M.G.)

Tonque (Ben Loyal)

Farr (Farr Bay, 1951, C.W.)

# H. hebridense Pugsl. (108)

Rocky streams, grassy banks and cliff-ledges.

Assynt (Inchnadamph, 1899, C.E.S., 1908, E.S.M., 1950, C.W.) Durness (Ben Hope, H.W.P.)

# H. ampliatum (W. R. Linton) A. Ley (108)

Cliff-ledges and rocky streams.

Assynt (Lochinver, 1890, E.S.M., Inchnadamph, 1908, E.S.M.)

Eddrachillis (Craig Riabbach, 1964, A.G.K.)

Durness (Ben Hope, Loch Eriboll, 1964, A.G.K.)

Tongue (Tongue Bay, 1897, E.S.M.)

Farr (Ben Klibreck, 1897, E.S.M.)

# H. langwellense F. J. Hanb. (107, 108)

Rocky banks of streams.

Creich (Streams round Oykell Bridge, 1908, E.S.M., 1953, C.W.)

Lairg (Lairg, H.W.P.)

Kildonan (Torrish, 1957, M.McC.W., Helmsdale, 1888, E.F.L.)

Assynt (Streams round Inchnadamph, 1908, E.S.M.)

Durness (Ben Hope)

# H. shoolbredii E. S. Marshall (108)

Rock-ledges and rocky banks of streams.

Assynt (Knockan, 1923, R.H.W., Elphin, Inchnadamph, 1899, C.E.S., 1908, E.S.M., 1950, C.W., 1956, R.A.G., Kulesku, 1890, F.J.H.)

Eddrachillis (Sandwood, 1957, M.McC.W., Craig Riabbach, 1964, A.G.K.)

Durness (Kearvaig & Koeldale, 1964, A.G.K., Durness, 1951, C.W.,

Smoo, 1923, R.H.W., 1951, C.W., Foinaven, 1964, C.W., Ben Hope, 1953, M.C.F.P.)

 $Tongue \; (\textit{Ben Loyal}, \; 1897, \; E.S.M. \; \; \& \; W.A.S., \; 1953, \; C.W.)$ 

Farr (Invernaver, 1886, E.S.M., Bettyhill, 1888, E.F.L., 1955,

M.McC.W., Farr Bay, 1915, E.S.M., 1951, C.W.)

# **H. iricum** Fries (107, 108)

Rock-ledges, rocky banks of streams and grassy slopes.

Creich (Oykell Bridge, 1953, C.W.)

Assynt (Knockan, Lochinver, Skiag Bridge, Stoer, Inchnadamph, 1956,

R.A.G. & R.M.H.)

Durness (Durness, 1856, D.O., 1887, E.S.M., Balnakeil)

Tongue (Coldbackie)

Farr (Invernaver, 1891, E.S.M., Farr Bay, 1953, M.McC.W., Melvich, 1952, C.W. & J.W.C.)

## Section Oreadea Zahn.

# H. schmidtii Tausch (108)

Eddrachillis (Sandwood, 1960, A.G.K.)

Farr (Invernaver, 1886, E.S.M., Bettyhill, 1888, E.F.L., Farr Bay, 1952, C.W., Melvich, 1952, C.W.)

# **H. nitidum** Backh. (107, 108)

Rocky ledges.

Kildonan (Ben Griam, 1900, E.S.M.)

Assynt (Unapool, 1908, E.S.M., Inchnadamph, 1908, E.S.M.,

Culkein-Drumbeg, 1964, A.G.K.)

Eddrachillis (Badcall, 1885, F.J.H., Oldshoremore & Rhiconich, 1964, A.G.K.)

Durness (Ben Hope, 1900, E.S.M., 1888, F.J.H., Fashven, 1964, A.G.K.)
Tonque (Tonque, 1901, E.S.M).

Farr (Invernaver, 1897, E.S.M. & W.A.S., Farr Bay, 1915, E.S.M., 1915, C.W., Melvich, 1897, E.S.M.)

# H. argenteum Fries (107, 108)

Rocky ledges, stream sides, grassy slopes and sand dunes.

Creich (Oykell Bridge, 1908, E.S.M.)

Golspie (Strathsteven, 1888, J.G., Golspie)

Clyne (Brora, 1897, E.S.M.)

Assynt (Knockan, 1894, G.C.D., Inchnadamph, 1897, E.S.M., Quinag, 1962, A.G.K.)

Eddrachillis (Sandwood, 1962, A.G.K.)

Durness (Ben Hope, 1888, F.J.H., Loch Hope, 1900, E.S.M., Durness, 1946, C.W.M.)

Tongue (Talmine, 1897, E.S.M., Tongue, 1897, E.S.M., Scullomie, 1900, E.S.M., Coldbackie, 1897, E.S.M., Skerray, 1900, E.S.M.)

Farr (Altnaharra, 1888 & 1915, E.S.M., Bettyhill, 1888, W.R.L., 1899, E.S.M., Farr Bay, 1951, C.W., Armadale, 1915, E.S.M., Kirtomy, Melvich, 1951, C.W., Strathy, 1956, J.A.)

# H. scoticum F. J. Hanb. (108)

Rocky ledges and grassy banks.

Assynt (Inchnadamph, 1908, W.A.S.)

Tongue (Skerray, 1900, W.A.S.)

Farr (Farr Bay, 1897, W.R.L., 1951, C.W., Kirtomy, 1897, E.S.M., Armadale, 1888, W.R.L., Strathy, 1888, J.C.M., 1915, E.S.M., Melvich, 1915, F.J.H., 1951, C.W.)

# Section Suboreadea Pugsl.

H. jovimontis (Zahn) Roffey (108)

Rocky ledges and banks.

Eddrachillis (Oldshoremore, 1964, A.G.K.)

Durness (Heilam Ferry, F.J.H.)

Farr (Altnaharra & Bettyhill, T.J.F.)

# H. saxorum (F. J. Hanb.) Sell & West (107, 108)

Rocky ledges and stream sides.

Dornoch (Mound, 1962, M.McC.W.)

Tongue (Kinloch, 1897, E.S.M.)

# H. dicella Sell & West (107, 108)

Limestone rocks.

Dornoch (Cambusmore, 1962, M.McC.W.)

Assynt (Inchnadamph, 1956, R.A.G. & R.M.H.)

Durness (Durness, 1956, J.A., Smoo, 1951, C.W.)

# H. sarcophylloides Dahlst. (108)

Limestone cliffs.

Durness (Smoo, 1900, E.S.M., Seamraig, 1964, A.G.K.) Farr (Altnaharra, 1888, J.C.)

Section Vulgata F. N. Williams

# H. prolixum Noorlin (108)

Rocky ledges and sandhills.

Durness (Ben Hope, 1900, E.S.M.)

Tongue (Achininver, 1897, E.S.M.)

# H. subtenue (W. R. Linton) Roffey (107, 108)

Rocky ledges and stream sides.

Creich (Streams round Oykell Bridge, 1908, W.A.S.)

Eddrachillis (Craig Riabbach, 1964, A.G.K.)

Assynt (Stoer, 1956, R.A.G., Canisp, 1899, C.E.S., Inchnadamph, 1908, E.S.M.)

Durness (Ben Hope, 1900, E.S.M., Fashven, 1964, A.G.K.)

Tongue (Ben Loyal, 1900, E.S.M.)

# H. aggregatum Backh. (108)

Rocky ledges.

Tongue (Skerray, E.S.M.) fide Pugsl.

# H. camptopetalum (F. J. Hanb.) Sell & West (108)

Rocky stream sides and cliffs.

Assynt (Kylesku, 1908, E.S.M., Inchnadamph, 1908, E.S.M., 1951, C.W.) Durness (Streams by Ben Hope, 1888, J.C.M., 1952, C.W.)

# H. duriceps F. J. Hanb. (107, 108)

Rocky cliffs, stream sides and grassy banks.

Creich (Oykell Bridge, 1952, C.W.)

Assynt (Inchnadamph, 1890, E.S.M.)

Farr (Altnaharra, 1888, F.J.H., Ben Klibreck, 1897, E.S.M., Bettyhill & Farr Bay, 1910, E.S.M.)

# H. pollinarium F. J. Hanb. (108)

Rocky ledges.

Farr (Strathnaver, 1888, J.C.M., Invernaver, 1886, F.J.H., Farr Bay, 1915, E.S.M.)

# **H. pictorum** E. F. Linton (107, 108)

Rocky cliffs and stream sides.

Creich (Oykell Bridge, 1908, E.S.M.)

Tongue (Ben Loyal, 1900, E.S.M.)

# H. pollinarioides Pugsl. (108)

Limestone rocks.

Assynt (Inverkirkaig, 1944, A.J.W., Lochinver, 1890, E.S.M., 1944, A.J.W., Stoer, 1956, R.A.G., Clashnessie, 1956, R.A.G.)

Eddrachillis (Oldshoremore, 1964, A.G.K.)

Durness (Smoo, 1923, R.H.W., 1958, U.K.D., Balnakeil, 1959, C.W., Durness, 1900, E.S.M.)
Farr (Bettyhill, 1953, M.McC.W.)

# H. variicolor var. piligerum Pugsl. (108)

Rocky cliffs and stream sides.

Assynt (Culag, 1956, R.A.G., Inchnadamph, E.S.M.)

Durness (Ben Hope, 1900, E.S.M.)

# H. dipteroides Dahlst. (108)

Rocky cliffs and stream sides.

Assynt (Beinn Garbh, 1908, W.A.S.)

# H. rivale F. J. Hanb. (107, 108)

Rocky cliffs and stream sides.

Kildonan (Ben Griam Mor, 1963, M.McC.W.)

Assynt (Inchnadamph, 1890, F.J.H., 1908, E.S.M.)

Eddrachillis (Craig Riabbach, 1964, A.G.K.)

Durness (Carnstackie & Beinn Spionnaidh, 1964, A.G.K.)

## H. euprepes F. J. Hanb. (108)

Rocky places, sand dunes and grassy banks.

Assynt (Stoer, 1956, R.A.G.)

Eddrachillis (Cnoc na Glaic Torsain, 1964, A.G.K.)

Durness (Balnakeil, 1953, M.C.F.P., Carnstackie & Farrmheal, 1964, A.G.K.)

Tongue (Tongue Ferry, 1897, E.S.M. & W.A.S., 1900, E.S.M.)

Farr (Invernaver, 1888, W.R.L., Armadale, 1915, E.S.M., Melvich, 1897, E.S.M., Bettyhill, 1897, W.A.S.)

# H. vennicontium Pugsl. (108)

Rocky stream sides.

Assynt (Ben Garbh, 1908, E.S.M.)

# H. caesiomurorum Lindeb. (108)

Grassy banks and rocky stream sides.

Creich (1908, E.S.M.)

Assynt (Clachtoll, 1952, D.McC., Inchnadamph, 1900, C.E.S.)

Durness (Smoo, 1964, A.G.K.)

Tongue (Tongue & Ben Loyal, 1900, E.S.M.)

Farr (Forsinard, 1964, A.G.K.)

# H. rubiginosum F. J. Hanb. (108)

Rocky stream sides.

Eddrachillis (Craig Ribbach & Rhiconich, 1962, A.G.K.)

# H. cravoniense (F. J. Hanb.) Roffey (107, 108)

Grassy and rocky places.

Creich (Oykell Bridge, F.J.H.)

Dornoch (Torboll, 1955, J.A.)

Tongue (Ardskinid, 1900, E.S.M.)

Farr (Farr Bay, 1951, C.W.)

# H. fulvocaesium Pugsl. (108)

Grassy banks.

Farr (Bettyhill, 1887, E.S.M., 1953, J.E.R.)

# H. proximium F. J. Hanb. (108)

Sandhills.

Tongue (Melness, 1897, E.S.M. & W.A.S.)

# H. caledonicum F. J. Hanb. (108)

On rocky ledges and stream sides.

Assynt (Lockinver & Canisp, 1890, E.S.M., Inchnadamph, 1887, E.S.M., 1908, E.S.M. & W.A.S., 1951, C.W.)

Durness (Balnakeil, 1948, M.McC.W., Fashven, Inshore, Kearvaig, 1964, A.G.K.)

Tongue (Ben Loyal, Melness, Tongue, 1897, E.S.M., Coldbackie, 1900, E.S.M.)

Farr (Altnaharra, 1888, F.J.H., Strathnaver, 1888, J.C.M., Bettyhill, Kirtomy, Melvich, 1897, E.S.M., Farr Bay, 1915, E.S.M., Strathy, 1915, E.S.M.)

# H. vulgatum Fries (107, 108)

On rocks, grassy places, walls and dunes.

Creich (Oykell Bridge, 1952, C.W. & J.W.C.)

Golspie (Golspie, 1950, C.W.)

Clyne (Brora, 1950, C.W. & J.W.C.)

Kildonan (Ord, 1960, J.A.)

Assynt (Inchnadamph & Kylesku, 1908, E.S.M., Knockan, 1958,

M.McC.W., Lochinver, Stoer & Clashnessie, 1956, R.A.G. & R.M.H.,

Loch Assynt, 1953, P.F.Y., Achmelvich, 1955, J.A., 1943, A.J.W.)

Tongue (Melness, 1897, E.S.M.)

Farr (Bettyhill, 1886, E.S.M., 1953, C.W. & J.W.C.)

# H. angustisquamum (Pugsl.) Pugsl. (108)

On limestone.

Assynt (Ledmore, 1964, A.G.K.)

Section Alpestria Fries

# H. dovrense Fries (108)

Rocky ledges.

Eddrachillis (Rhiconich, 1964, A.G.K.)

Tongue (Ben Loyal, 1897, E.S.M., 1953, J.E.R.)

## Section Tridentata Fries

# H. sparsifolium Lindeb. (107, 108)

Grassy banks and rocky places.

Creich (Oykell Bridge, 1890, E.S.M., 1956, C.W.)

Assynt (Inchnadamph, 1923, R.H.W.)

Eddrachillis (Laxford Bridge)

Durness (Kearvaig, 1964, A.G.K.)

Tongue (Tongue, 1953, M.McC.W.)

# Section Foliosa Pugsl.

# H. latobrigorum (Zahn) Roffey (107, 108)

Grassy banks and rocks.

Creich (Bonar Bridge, H.W.P., Oykell Bridge, 1953, C.W.)

Clyne (Strath Brora, 1897, W.A.S.)

Durness (Koeldale, 1964, A.G.K.)

Tongue (Tongue, H.W.P.)

Farr (Altnaharra, 1887, E.S.M., Strathnaver, 1957, J.A., Bettyhill, 1952, C.W., Farr, 1856, D.O., Armadale, Strathy, 1953, C.W., Melvich, 1953, C.W.)

# H. subcrocatum (E. F. Linton) Roffey (107, 108)

Grassy places and banks of streams.

Clyne (Brora, 1957, M.McC.W.)

Assynt (Inverkirkaig, Achmelvich, 1944, A.J.W. & M.S.C.)

Farr (Bettyhill, 1954, J.E.R.)

# H. strictiforme (Zahn) Roffey (108)

Grassy places and banks of streams.

Assynt (Inverkirkaig, 1944, A.J.W. & M.S.C., Inchnadamph, 1953, C.W.)

Durness (Inshore, Geodha Sligeach, 1964, A.G.K.)

Tongue (Melness, Tongue, Coldbackie, 1897, E.S.M.)

Farr (Altnaharra, 1889, W.F.M., 1897, E.S.M.)

# H. reticulatum Lindeb. (107, 108)

Rocky banks of streams and grassy places.

Creich (Oykell Bridge, 1953, C.W.)

Tongue (Tongue, 1897, E.S.M., Skerray, 1959, C.W.)

Farr (Altnaharra, 1887, E.S.M., Bettyhill, 1951, C.W., Strathy, 1915, E.S.M., 1951, C.W.)

H. maritimum (F. J. Hanb.) F. J. Hanb. (108) Grassy banks and sandy places. Tongue (Skerray, 1900, E.S.M.) Farr (Melvich, 1887, E.S.M., 1951, C.W.)

## Section Umbellata F. N. Williams

H. umbellatum L. (108) sub sp. umbellatum Grassy and sandy places. Farr (Farr Bay, 1827, R.G.)

## Crepis L.

C. capillaris (L.) Wallr. (107, 108) Smooth Hawk's-beard Pastures, dunes, waste places. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

C. paludosa (L.) Moench (107, 108) Marsh Hawk's-beard Wet grassy places. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## Taraxacum Weber

T. officinale Weber. (107, 108) Common Dandelion
Fields, waste places. Common, widespread.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

 $\bf T.$  palustre (Lyons) DC. (107, 108) Narrow-leaved Marsh Dandelion Marshes. Frequent.

CREICH LAIRG — DORNOCH GOLSPIE CLYNE LOTH KILDONAN — TONGUE FARR

T. spectabile Dahlst. (107, 108) Broad-leaved Marsh Dandelion Bogs. Frequent.

KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

T. laevigatum (Willd.) DC. (107, 108) Lesser Dandelion Heaths and sandy ground. Frequent.

DORNOCH GOLSPIE CLYNE ---

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# MONOCOTYLEDONES

 $\begin{array}{l} \mathbf{JUNCAGINACEAE} \\ \mathbf{Triglochin} \ \mathbf{L}. \end{array}$ 

	tris L. (107, 108)					
	and wet meadov					
CREICH	LAIRG ROGART	DORNOCH		CLYNE	LOTH	KILDONA
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	rshes. Frequent.	) Sea Arro	wgrass			
		DORNOCH	GOLSPIE			KILDONA
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	OSTERACEAL	E				
Z	Zostera L.					
	na L. (107, 108) I ea near low wate		۵			
	ea freat low water		GOLSPIE			
ASSYNT						
Golspie	(Loch Fleet, 1888 Oldany, 1955, B.					
	stifolia (Hornem. estuaries. Very ra		107, 108)	Narrow-	leaved	Eelgrass
			GOLSPIE			
	***************************************		TONGUE	FARR		
	(Loch Fleet, 1897 (Kyle of Tongue,					
	Hornem. (107) I estuaries. Very ra		rass			
			GOLSPIE			
$\overline{Golspie}$	$(Loch\ Fleet,\ 1897)$	E.S.M.	₩.A.S.)	*******		
	OTAMOGETO: Potamogeton L.	NACEAE				
	as L. (107, 108) B nd lochans. Frequ		d Pondwe	ed		

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

P. polygonifolius Pourr. (107, 108) Bog Pondweed
Peaty pools in bogs and moors. Common, widespread.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONA
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR
P. lucens L. (108) Shining Pondweed
Assynt (Recorded by A. Gray, 1886)
P. gramineus L. (108) Various-leaved Pondweed
Lochs and lochans. Occasional.
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR
Assynt (Loch Awe, 1886, A.G., 1890, E.S.M., Stoer, 1944, A.J.W. & M.S.C.)
Durness (Durness, 1881, W.F.M.)
Tongue (Lochs Modsarie, Craisg, Hakel & Dubh, 1948, G.T.)
Farr (Loch Naver, 1888, F.J.H. & J.C.M.)
P.×nitens Weber (108)
Lochs and lochans. Rare.
ASSYNT EDDRACHILLIS — TONGUE —
Assynt (Lochinver, 1886, A.G., Loch an Aigeil, 1944, A.J.W. & M.S.C.)
Eddrachillis (Scourie, 1885, H.E.F. & F.J.H.)
Tongue (Loch Modsarie, 1948, G.T.)
D alning Palls (109) Dad Dandward
P. alpinus Balb. (108) Red Pondweed Lochans. Rare.
Lochans, Teare.
ASSYNT — TONGUE —
Assynt (Loch an Aigeal, 1948, A.J.W. & M.S.C.)
Tongue (Loch Slaim, 1948, G.T.)
P. praelongus Wulf. (108) Long-stalked Pondweed
In lochs. Rare.
CREICH ————————————————————————————————————
ASSYNT — DURNESS — — — — — — — — — — — — — — — — — —
Creich (Loch Sail, 1969, U.K.D.)
Assynt (Loch Maol a Choire, 1936, J.E.L., Gillaroo Loch, 1890, E.S.M.)

**P.** perfoliatus L. (107, 108) Perfoliate Pondweed In lochs. Occasional.

Durness (Loch Borralie, 1948, G.T.)

CREICH	·
ASSYNT EDDRACHILLIS DURNESS TONGUE —— Creich (Bonar Bridge, 1842, J.S., Loch Sail, 1969, U.K.D.) Assynt (Loch Awe, 1886, A.G., 1890, F.J.H. & E.S.M., Loch Born 1886, A.G., Loch an Ordain & Loch Bad na Muirichinn, 1944, A. & M.S.C.) Durness (Loch Croispol & Borralie, 1948, G.T., 1881, W.F.M.)	
Tongue (Lochs Modsarie & Craisg, 1948, G.T.)	
P.×cognatus Aschers. & Graebn. (108) Lochs. Very rare.	
Durness (Loch Borralie, 1948, G.T.)	
P. berchtoldii Fieb. (108) Small Pondweed In lochs. Rare.	
Assynt (Loch an Aigeil, 1944, A.J.W. & M.S.C.)	
P. crispus L. (108) Curled Pondweed Lochs. Rare.	
Eddrachillis (Sandwood)	
P. filiformis Pers. (108) Slender-leaved Pondweed In lochs. Rare.	
ASSYNT — DURNESS — — — — — — — — — — — — — — — — — —	
P. pectinatus L. (108) Fennel Pondweed In lochs. Rare.	
Durness (Loch Borralie, 1948, G.T.)	

# RUPPIACEAE

Ruppia L.

R. maritima L. (107) Beaked Tasselweed or Tassel Pondweed In salt-marsh. Very rare.
GOLSPIE
Golspie (Little Ferry, 1962, M.McC.W.)
LILIACEAE Tofieldia Huds.
<b>Γ. pusilla</b> (Michx.) Pers. (108) Scottish Asphodel Marshes and by springs on hills. Rare.
Assynt (Inchnadamph) Durness (Durness, Ben Hope)
Narthecium Huds.
N. ossifragum (L.) Huds. (107, 108) Bog Asphodel Bogs and wet heaths. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDON. ASSYNT EDDRACHILLIS DURNESS TONGUE FARR
Ornithogalum L.
O. umbellatum L. (107) Star-of-Bethlehem Introduced. Clyne (Brora) Scilla L.
S. verna Huds. (108) Spring Squill Grassy turf near the sea. Occasional on the north coast.
EDDRACHILLIS DURNESS TONGUE FARR
Endymion Dumort.
E. non-scriptus (L.) Garcke (107, 108) Bluebell or Wild Hyacinth In woods and amongst scrub. Frequent.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONA ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# TRILLIACEAE

Paris L.

# P. quadrifolia L. (108) Herb-Paris Assynt (Islet in Loch Awe. 1895, G.C.D.)

## JUNCACEAE

Juneus L.

# J. squarrosus L. (107, 108) Heath Rush

Heaths and moors. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# ${\bf J.}$ tenuis Willd. (108) Slender Rush

Bare place by paths. Rare.

ASSYNT EDDRACHILLIS DURNESS -

Assynt (Lochinver)

Eddrachillis (Kylesku)

Durness (Durness)

# J. gerardii Lois. (107, 108) Saltmarsh Rush or Mud Rush

Salt-marshes. Frequent.

CREICH — DORNOCH GOLSPIE — KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# J. trifidus L. (107, 108) Three-leaved Rush

Rock-ledges and stony places on many western hills. Ascends to 3000 ft. Occasional.

CREICH — — — — —

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# **J. bufonius** L. (107, 108) Toad Rush

Roadsides, paths, muddy places. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# J. effusus L. (107, 108) Soft Rush

Wet pastures, bogs. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

# J. conglomeratus L. (107, 108) Compact Rush

Wet pastures, bogs. Common, widespread.

CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
J. baltic	us Willd. (107, 10	8) Baltic l	Rush			
	acks. Occasional.	, = 41010 1				
		DORNOCH	GOLSPIE			
	EDDRACHILLIS	DURNESS	TONGUE	FARR		
J acutif	lorus Ehrh. ex H	offm (107	108) Sha	rn-flower	ed Rus	h
	adows, moors and			гр по по	.ca rus	
CREICH		DORNOCH	_		,	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS		FARR		
T antique	Johns T (107 106	2\ Tointod	Duch			
	latus L. (107, $108$ , wet meadows. C					
CREICH		DORNOCH		CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS		FARR	LOIM	RIDOWAN
I alnine	oarticulatus Chaix	· /100\ Alm	ina Duah			
	places on mounta		me Kusn			
	places on mounta	illis. Ivaire.				
ASSYNT			TONGUE			
	Inchnadamph, 18	87. E.S.M		,		
	(Ben Loyal, R.M		-/			
· ·	,	,				
	sus L. (107, 108)					
Wet bar	e places in heaths	s and wood	ls. Commo	n, wides	pread.	
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
J. kochi	i F. W. Schultz (1	107, 108)				
Wet hea	thy places. Ascen	ds to 2000	ft. Occas	ional in	west.	
	LAIRG —	· · ·				<del></del>
ASSYNT	EDDRACHILLIS	DURNESS		FARR		
J. castar	neus Sm. (107) Ch	estnut Ru	sh			
Marshes	and springs. 2500	oft. Very	rare.			
CREICH			·			·
						"
Creich (	Ben More Assynt,	1960, D.A	L. <i>R</i> .)			
	nis L. (107) Two-					
Stony pl	aces on hills at 2	500 ft. Ver	y rare.			
CREICH						
		·				

J. triglumis L. (107, 108) Three-flowered Rush Wet rock-ledges on mountains. Occasional. CREICH ---ASSYNT EDDRACHILLIS DURNESS . Creich (Ben More Assynt, 1827, R.G., 1959, D.A.R.) Assynt (Conival, 1886, A.G., 1890, E.S.M.) Durness (Ben Hope, 1957, R.E.C.F.) Luzula DC. L. pilosa (L.) Willd. (107, 108) Hairy Wood-rush Woods. Frequent in east, sparse in west. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT DURNESS TONGUE FARR L. sylvatica (Huds.) Gaudin. (107, 108) Great Wood-rush Woods, shady rocky places by streams. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR L. spicata (L.) DC. (107, 108) Spiked Wood-rush Rocky ledges on many western hills. Occasional. CRETCH LATEG KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Creich (Ben More Assynt) Laira (Ben Hee) Kildonan (Ben Griam) L. arcuata Sw. (107, 108) Curved Wood-rush Stony ground on mountains, about 3000 ft. Very rare. CREICH DURNESS -Creich (Ben More Assynt, 1824, R.G., 1899, C.E.S.) Durness (Foinaven, summit, 1824, R.G.) L. campestris (L.) DC. (107, 108) Field Wood-rush Grassy places. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR L. multiflora (Retz.) Lejeune (107, 108) Heath Wood-rush or

Many-headed Wood-rush

Heaths, woodland. Common, widespread.

CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
	MARYLLIDA ( Allium L.	CEAE				
	um L. (107, 108) woods, shady place	es. Occasio				<del></del>
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	RIDACEAE ris L.					
	acorus L. (107, 10s, swamps, stream			llow Fla	ag	
CREICH ASSYNT	LAIRG ROGART	DORNOCH			LOTH	KILDONAN
	Crocosmia Planch					
	cosmiflora (Lemo	ine) N. E.	Br. (107, 1	108) Mo	ntbretia	
	EDDRACHILLIS		GOLSPIE	CLYNE FARR	<del></del> ,	KILDONAN
	ORCHIDACEA Cephalanthera Ri					
C. longi Woods	ifolia (L.) Fritsch . Rare.	(108) Nar	row-leaved	or Long	$_{ m g ext{-}leaved}$	Helleborine
ASSYNT Assynt	(Inverkirkaig &	Lochinver)			Marine participation of the Control	
	Epipactis Sw.					
	eborine (L.) Crant . Rare.	z. (108) B	road-leave	d Hellel	oorine	
ASSYNT	· · · ·		TONGUE			

E. atrorubens (Hoffm.) Schult. (108) Dark-red Helleborine

Assynt (Achmelvich)

Tongue (Melness & Tongue)

Limestone rocks and scree	s. Occasio	nal.			
ASSYNT —— Assynt (Inchnadamph) Durness (Koeldale & Smoot Tongue (Melness) Farr (Invernaver)	DURNESS	TONGUE	FARR		
Listera R. Br.					
L. ovata (L.) R. Br. (107, Damp sandy pastures. Fre	quent.		yblade		
ASSYNT EDDRACHILLIS	DORNOCH DURNESS		FARR		KILDONAN
		ther. Spar	sely but	widely o	distributed.
Goodyera R. Br.				,	
G. repens (L.) R. Br. (107, Pine woods. Occasional.	108) Cred		y's-tress	es	
<b>Hammarbya</b> Kuntze	e				
H. paludosa (L.) Kuntze (I In wet moss on moors and CREICH LAIRG ————————————————————————————————————	DURNESS 3, R.G., Si M.McC.W 7.S.M.) 3, A.T., 1	Rare. TONGUE hin Bridge  Loch Stack,	, 1943, 2 , 1964, 1	D.A.R.)	KILDONAN
C minida (I ) Hantra (107	100) E	or Orobid			

C. viride (L.) Hartm. (107, 108) Frog Orchid

Sandy p	astures by the se	-		
ASSYNT	EDDRACHILLIS	DORNOCH GOLSPIE DURNESS TONGUE	FARR	
G	ymnadenia R. B	r.		
-	osea (L.) R. Br. ( conopsea	107, 108) Fragrant (	Orchid	
Grasslan	d and heaths. Fr	requent.		
CREICH	LAIRG	DORNOCH GOLSPIE	LO	OTH KILDONA
ASSYNT	EDDRACHILLIS	DURNESS TONGUE	FARR	
L	eucorchis E. Mey	7		
	ı (L.) E. Mey. ex s. Frequent.	schur (107, 108) Sn	nall white O	rehid
CREICH	LAIRG —			
ASSYNT	EDDRACHILLIS	DURNESS TONGUE	FARR	
P	latanthera Rich.			
	antha (Custer) R tures. Occasional	eichb. (107, 108) Gre	eater Butter	rfly-orchid
ASSYNT	EDDRACHILLIS	DURNESS TONGUE	FARR	
	a (L.) Rich (107, tures. Frequent.	108) Lesser Butterfl	y-orchid	
CREICH	LAIRG ROGART	DORNOCH GOLSPIE	CLYNE —	
ASSYNT	EDDRACHILLIS	DURNESS TONGUE	FARR	
0	rchis L.			·
	ula (L.) L. (107, : s. Frequent.	108) Early-purple O	rehid	
	ROGART	DORNOCH -	CLYNE —	
ASSYNT	EDDRACHILLIS	DURNESS TONGUE	FARR	
D	actylorchis (Klin	ge) Vermeul.		
	eadows. Frequer		on Spotted	-orchid
4.00373777		DURNESS TONGUE		
ASSYNT	EDDKACHILLS	DUKNESS TONGTIK	FARR.	

D. maculata (L.) Vermeul. (107, 108) Heath S Damp heaths and moors. Common, widespread		orchid	
CREICH LAIRG ROGART DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS TONGUE	CLYNE FARR	LOTH	KILDONAN
<b>D.</b> incarnata (L.) Vermeul. (107, 108) Meadow Early Marsh-orchid Marshes, damp pastures near the sea. Frequen		or	
CREICH LAIRG ROGART DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS TONGUE	CLYNE FARR	LOTH	KILDONAN
<b>D.</b> purpurella (T. & T. A. Stephenson) Verme Northern Marsh-orchid or Dwarf Purple Orch Wet grassy places. Frequent.	ul. (107, id	108)	
CREICH LAIRG ROGART DORNOCH GOLSPIE ASSYNT EDDRACHILLIS DURNESS TONGUE	CLYNE FARR	LOTH	KILDONAN
D. kerryensis (Wilmott) P. F. Hunt & Summ Irish Marsh-orchid sub sp. occidentalis (Pugsl.) P. F. Hunt & Su Marshes. Rare.		yes (108	)
	FARR		
Farr (Melvich)			
LEMNACEAE Lemna L.			
L. minor L. (107) Common Duckweed In ponds. Rare.  ROGART DORNOCH ——		LOTH	
Rogart (Rogart, 1959, M.McC.W.) Dornoch (Dornoch, 1955, J.A.) Loth (Glen Sletdale, 1962, V.S.S.)			
SPARGANIACEAE Sparganium L.			
S. erectum L. (107, 108) Branched Bur-reed Lochans. Occasional.  ———————————————————————————————————		, <u></u>	KILDONAN
DURNESS ——	FARR		
S. emersum Rehm. (108) Unbranched Bur-re	eed		

Lochans. Rare.					
ASSYNT —			FARR		
S. angustifolium Michx. (Lochs. Occasional.	107, 108) I	Floating B	ur-reed		
ASSYNT EDDRACHILLIS	DORNOCH DURNESS		FARR	,	
S. minimum Wallr. (107, Lochans. Occasional. CREICH LAIRG ROGART ASSYNT EDDRACHILLIS			or Smal	l Bur-re	eed KILDONAN
TYPHACEAE Typha L.	DOMINION	101(001	111111		
T. latifolia L. (107) Bulru In a pond. Rare.  ———————————————————————————————————	DORNOCH				
Dornoch (Dornoch, 1955,  CYPERACEAE  Eriophorum L.	J.A.)				
E. angustifolium Honek. Bog pools. Common, wid		Common	$\operatorname{Cottongr}$	ass:	
CREICH LAIRG ROGART ASSYNT EDDRACHILLIS			CLYNE FARR	LOTH	KILDONAN
E. latifolium Hoppe (107) Wet places on basic soil.			Cottongr	ass	
CREICH LAIRG —— ASSYNT EDDRACHILLIS	DORNOCH	TONGUE			
E. vaginatum L. (107, 10 Wet places on heaths and CREICH LAIRG ROGART ASSYNT EDDRACHILLIS	d moors. C	ommon, w	$\dot{ ext{idesprea}}$		KILDONAN
Scirnus I.					

Scirpus L

S. caespitosus L. (107, 108) Deergrass Wet heaths. Common, widespread.

CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH		CLYNE FARR	LOTH	KILDONAN
S. lacust	bris L. (107, 108)	Common C	llub-rush (	or Bulrus	sh	
Lochs. (	Occasional.					
CREICH		-		CLYNE		KILDONAN
ASSYNT	EDDRACHILLIS -		TONGUE	FARR		
	eus L. (107, 108) are places. Frequ		b-rush			
CREICH	LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	·	TONGUE	FARR		
	as L. (108) Floati and lochans. Fre					
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
E	leocharis R. Br.					
T			0-1 /	107 100	`	
	ueflora (F. X. Ha	artmann.)	Schwarz (.	107, 108	)	
	vered Spike-rush eaty places on mo	org Comn	non			
	LAIRG ROGART			CLYNE		KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS		FARR		KILDONAN
Wet pea CREICH	caulis (Sm.) Sm. ty places in bogs.	Occasiona	ıl. ——		ce-rush	_
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	tris (L.) Roem. & of lochs. Common		07, 108) C	Common	Spike-r	ısh
CREICH	LAIRG ROGART	${\tt DORNOCH}$	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	ımis (Link) Schu near the sea. Ra	re.	8) Slende	r Spike-ı	rush	
		DORNOCH				
Assynt ( Eddrachi Tongue (	EDDRACHILLIS Inverkirkaig, Loc. Illis (Laxford Brid Melness)	dge )	TONGUE	FARR		
Farr (In	vernaver, Altnaho	ırra, Melvi	cn)			
INV						

# Blysmus Panz.

Saltmar	(Huds.) Link (10 sh Flat-sedge salt marshes. Free		arrow Bly	smus or		
		DORNOCH	COLSPIE			
ASSYNT	EDDRACHILLIS	DURNESS		FARR		
S	choenus L.					
	eans L. (107, 108) eaty places. Com LAIRG ROGART EDDRACHILLIS		GOLSPIE	CLYNE FARR	LOTH	KILDONAN
R	hynchospora Val	nl				
	(L.) Vahl (107, 10 ty places. Occasion		Beak-sedg	çe		ZII DON AN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		KILDONAN
C	ladium Browne					
	cus (L.) Pohl (10 ty pool. Rare.	8) Great F	en-sedge o	or Saw S	$_{ m edge}$	
Eddrach	EDDRACHILLIS illis (between Kyle	estrome &	$\overline{Badcall}$ )			
C	arex L.					
C. laevig Marshes	ata Sm. (107, 108 . Rare.	3) Smooth-	stalked Se	edge		KILDONAN
	EDDRACHILIS illis (Loch Laxfor n (Kildonan, 1956					. ,
	s L. (108) Distan					
	EDDRACHILIS illis (Kinlochbervi (Balnakeil, 1948)			FARR McC.W.)		

	na DC. (107, 108, wet pastures an					
	LAIRG ROGART EDDRACHILLIS		GOLSPIE	CLYNE FARR	LOTH	KILDONAN
C. binery	ris Sm. (107, 108) and moors. Comm LAIRG ROGART EDDRACHILLIS	Green-rib	bed Sedge pread. GOLSPIE		LOTH	KILDONAN
	carpa Tausch (10 ths. Frequent.	7, 108) Lo	ng-stalked	l Yellow	Sedge	
						KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
Stony portion of the control of the	EDDRACHILLIS	nd. Commo DORNOCH DURNESS	on, widespo GOLSPIE TONGUE	read. CLYNE FARR	LOTH	KILDONAN
Rocky I	places. Rare.					
Eddrach	EDDRACHILLIS illis (Sheigra & 1	Sandwood,	 1951, M.A	$\overline{IcC.W}.,$	Rhicon	ich, 1963,
Dwarf ?	ina Mérat (107, 16 Yellow Sedge andy places. Occ	•	fruited Ye	llow Sed	ge or	
-			GOLSPIE			KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	salt marshes. Occ		g-bracted S	Sedge		
Olassy	sait maisiics. Occ	DORNOCH				
ASSYNT	EDDRACHILLIS		TONGUE	FARR		
Woods.	tica Huds. (107, Rare. LAIRG ROGART EDDRACHILLIS Loch Shin)		Sedge	· · ·		_

Rogart (Strath Fleet) Eddrachillis (Kylesku) C. capillaris L. (107, 108) Hair Sedge Wet grassy places on basic soil. Mainly on north and west coast. Frequent. KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. rostrata Stokes (107, 108) Bottle Sedge Margins of lochans and marshes. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE KILDONAN CLYNE LOTH ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. vesicaria L. (107) Bladder Sedge Margins of lochs. Rare. KILDONAN CLYNE -Clyne (Loch Brora, 1957, W.A.T.) Kildonan (Kildonan, 1957, M.McC.W.) C. saxatilis L. (107, 108) Russet Sedge Mountain bogs. Rare. CREICH ---FARR Creich (Ben More Assynt at 2700 ft, 1960, D.A.R.) Farr (Ben Klibreck, 1952, J.R.) C. pallescens L. (107, 108) Pale Sedge Wet woods. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. panicea L. (107, 108) Carnation Sedge Wet grassy places. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. vaginata Tausch (108) Sheathed Sedge

Eddrachillis (Oldshoremore, 1833, W.H.C.) Durness (Foinaven, 1957, E.A.B.)

Wet rocky places. Rare.

	a L. (107, 108) B margins of lochan ————————————————————————————————————		nal.	lge  FARR		_
C. flacca	Schreb. (107, 109 ous grassland. Cor	8) Glaucou			ion gras	S
CREICH ASSYNT	_			CLYNE FARR	LOTH	KILDONAN
Swamps	arpa Ehr. (107, 10 and loch margin	s. Occasion				
CREICH ASSYNT	ROGART EDDRACHILLIS	DURNESS	TONGUE	FARR		
	Cera L. (107, 108) and heathy places LAIRG ROGART EDDRACHILLIS		, widespre GOLSPIE	ad. CLYNE FARR	LOTH	KILDONAN
	phyllea Latourr. ( us pastures. Occa		ig Sedge			
Assynt ( Eddrach	EDDRACHILLIS Hills round Inchrillis (Scourie, Rhi			FARR		
	L. (108) Slender Very rare.	Tufted Se	dge			
Farr (A	 ltnaharra, 1963, C	Z.R.L.)		FARR		
_	ilis Wahlenb. (108 of streams. Rare	•	ledge or St	raight-le	eaved Se	edge
Farr (A. 1900, E.	ltnaharra, 1882, H S.M., 1907 & 19	H.E.F. &	F.J.H., 18	FARR 97, E.S.	M. & V	V.A.S.,
On silt.	Boott (107) Estu- Very rare. ( <i>Loch Fleet</i> )	arine Sedg	e			

	(L.) Reichard (I ssy places. Comn			eage		
CREICH ASSYNT		DORNOCH DURNESS	GOLSPIE	CLYNE FARR	LOTH	KILDONAN
	owii Torr. ex Sch tony places on th					
CREICH	LAIRG ——	DUDNEGG		EADD		KILDONAN
ASSYNT	EDDRACHILLIS	DURNESS	TONGUE	FARR		
	ulata L. (108) Gr ss. Rare.	eater Tusse	ock Sedge	or Panie	eled Sed	lge
Eddrach 1964, A.	EDDRACHILLIS illis (Sandwood, I.G.K.)	 1948, M.M	cC.W., Ha	 unda, 196	32, B.S.	B., Eriboll,
C. diand In bog.	ra Schrank (107) Rare. ROGART		ssock Sedg	ge or Les	sser Fox	Sedge
Rogart (	Rogart, 1950, M.	McC.W.				
	ha Huds. (107, 10 grass. Rare.	08) Brown	Sedge			
	Invershin, 1907, ( (Durness)	DURNESS $(C.D.)$	·			
	ria L. (107, 108) ea-shores. Freque		<b>e</b>			,
ASSYNT	EDDRACHILLIS		GOLSPIE TONGUE	FARR	LOTH	KILDONAN
	orrhiza L. f. (108 gnum bogs. Very		$_{ m edge}$			
Farr (A		E.S.M. &	W.A.S., M	FARR Iudale, 1	907, G.C	7.D.)
	ima Gunn (107, 1 y sea-shores. Occ		d Sedge			
		DORNOCH DURNESS		CLYNE FARR		

Dornoch (Dornoch) Clyne (Brora) Durness (Koeldale) Tongue (Scullomia, Melness) Farr (Invernaver) C. echinata Murr. (107, 108) Star Sedge Moors and bogs. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. remota L. (107, 108) Remote Sedge Wet shady places. Rare. DORNOCH ----CLYNE ---KILDONAN ASSYNT -Dornoch (Cambusmore, 1960, J.A.) Clyne (Brora, 1958, M.McC.W.) Kildonan (Suisqill, 1958, M.McC.W.) Assynt (Lochinver, Stoer, 1944, A.J.W.) C. curta Gooden. (107, 108) White Sedge Bogs and marshes. Frequent. ROGART DORNOCH -CLYNE -KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. ovalis Gooden. (107, 108) Oval Sedge Rough grassy and waste places. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR C. rupestris All. (108) Rock Sedge Ledges on limestone rocks. From 50 ft on sea-cliffs to 1500 ft on hills round Inchnadamph. Rare. ASSYNT -DURNESS ---Assynt (Inchnadamph, 1890, E.S.M., Knockan, 1895, G.C.D., 1960, J.A.) Durness (Durness, 1865, I.B., Heilam Ferry & Smoo, 1960, D.A.R.) C. pauciflora Lightf. (107, 108) Few-flowered Sedge In bogs. Frequent. CREICH LAIRG -KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

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C. pulicaris L. (107, 108) Flea Sedge In damp places. Common, widespread.

ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN LAIRG ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

C. dioica L. (107, 108) Dioecious Sedge

On moors and bogs. Common.

LAIRG ROGART DORNOCH GOLSPIE CREICH CLYNE LOTH KILDONAN EDDRACHILLIS ASSYNT DURNESS TONGUE FARR

#### GRAMINEAE

Phragmites Adans.

P. communis Trin. (107, 108) Common Reed In swamps. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### Molinia Schrank

M. caerulea (L.) Moench (107, 108) Purple Moor-grass Wet places on heaths and mountains. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

### Sieglingia Bernh.

S. decumbers (L.) Bernh. (107, 108) Heath-grass On peaty and sandy soils. Common, widespread. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN DURNESS TONGUE

FARR

# Glyceria R. Br.

ASSYNT EDDRACHILLIS

G. fluitans (L.) R. Br. (107, 108) Floating Sweet-grass or Flote-grass In shallow water, ditches, ponds. Common. CREICH LAIRG ROGART DORNOCH GOLSPIE KILDONAN CLYNE LOTH ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

G. plicata Fr. (107, 108) Plicate Sweet-grass In ditches, Rare.

KILDONAN

EDDRACHILLIS

Kildonan (Helmsdale) Eddrachillis (Handa)

G. declinata Bréb. (107) Small Sweet-grass or Glaucous Sweet-grass

In muddy	pools. Rare.			:	LOTH	
Loth (Por	tgower)			-		
	a (Hartm.) Hol f streams. Rare		7) Reed S	weet-gra	ass	
		DORNOCH			<del></del>	
Dornoch (	—— Cambusmore)					
Fes	tuca L.					
	is Huds. (107) I adows. Rare.	Meadow F	escue			
CREICH -				CLYNE		KILDONAN
	acea Schreb. (1			FARR		
	. (107, 108) Re heaths, dunes,					
		DORNOCH		CLYNE	LOTH	KILDONAN
ASSYNT E	DDRACHILLIS	DURNESS	TONGUE	FARR		
	. (107, 108) Shoces. Common,					
CREICH L	AIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
ASSYNT E	DDRACHILLIS	DURNESS	TONGUE	FARR		
	ia Sibth. (107, 1 ces. Common.	108) Fine-	leaved She	ep's-fes	eue	
CREICH L	AIRG —		<del></del>	CLYNE		KILDONAN
ASSYNT -			TONGUE	FARR		
Pastures o	n (L.) Sm. (107, n mountains. A AIRG ROGART DDRACHILLIS		on north			KILDONAN
Loli	ium L.					

L. perenne L. (107, 108) Perennial Rye-grass

Grassy a CREICH ASSYNT	and waste places LAIRG ROGART EDDRACHILLIS	s. Common.  DORNOCH  DURNESS		CLYNE FARR	LOTH	KILDONAN
	florum Lam. (10 nd waysides. Fro		lian Rye-g	rass		
CREICH ASSYNT	LAIRG ROGART	-		CLYNE FARR	LOTH	KILDONAN
1	ulpia C. C. Gme	1.				
	oides (L.) Gray blaces, heaths. O		Barren Fes	scue or S	Squirrelt	ail Fescue
CREICH ASSYNT		DORNOCH	GOLSPIE TONGUE	FARR		KILDONAN
Casual.	os (L.) C. C. Gn Rogart, 1961, M	•	at's-tail F	escue		
P	Puccinellia Parl.					
Sea Poa	rima (Huds.) Par		S) Common	n Saltma	rsh-gra	ss or
		DORNOCH DURNESS	GOLSPIE	FARR		
	ns (L.) Parl. (108 rsh. Rare.	3) Reflexed	Poa or Re	eflexed S	altmars	h-grass
Durness	(Durness, D.M.	DURNESS (C., 1966)		FARR		
C	atapodium Link					
	num (L.) C. E. H re. Rare.	Iubbard (10	8) Darnel	Poa or	Sea Fer	n-grass
Assynt (	EDDRACHILLIS Clachtoll, 1944, illis (Pollin, 195					
P	oa L.					
P. annu	a L. (107, 108)	Annual Mea	dow-grass			

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Fields, recreich	oadsides, waste p LAIRG ROGART EDDRACHILLIS	laces. Com DORNOCH DURNESS		espread. CLYNE FARR	LOTH	KILDONAN
	L. (107) Alpine aces on mountair					
Creich (	Ben More Assynt,	1826, R.G	F., 1959, D	A.R.		
	ralis L. (107, 108 and s. Occasional.	) Wood Me		SS	LOTH	KILDONAN
ASSYNT	<u></u>					
	a Vahl (108) Glau ock ledges on hill					
Durness	 Canisp, 1900, C.I (Meall Horn, 196 (Ben Loyal, 1959	58, D.A.R.	)	_		
	nsis L. (107, 108) s, roadsides, waste			iss		
CREICH ASSYNT	LAIRG ROGART EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
	erulea Sm. (107, pastal sand. Freq		ding Mead	low-gras	ss	
ASSYNT	EDDRACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	
	lis L. (107, 108) l places and waste LAIRG ROGART EDDRACHILLIS		uent. GOLSPIE	CLYNE FARR	LOTH	KILDONAN
C	atabrosa Beauv.					
In shalle	ica (L.) Beauv. (  ow water. Rare.  ————  EDDRACHILLIS	DORNOCH	_	—— FARR	ter Who	rl-grass
Dornoch	(Mound, 1888, J	.G., 1962,	A.McG.S.	)		

Assynt (Clachtoll, 1886, A.G., 1957, B.F.) Eddrachillis (Scourie, 1938, J.W.H.-H. & H.H.-H.) Farr (Melvich)

## Dactylis L.

D. glomerata L. (107, 108) Cock's-foot

Pastures, rough grassland, roadsides. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

### Cynosurus L.

C. cristatus L. (107, 108) Crested Dog's-tail

Grasslands. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### Briza L.

<b>B. media</b> L. (107, 108) Q Grasslands. Rare.	uaking-grass		
	GOLS	PIE	 
ASSYNT	DURNESS	· <del></del>	
Golspie (Dunrobin)			
Assynt (Lochinver, Inchr	(adamph)		
Durness ( $Durness$ )			
Melica L.		,	•
M. uniflora Retz. (107)	Wood Melick		
Damp woods. Rare.			
	DORNOCH GOLS	PIE —	 —
Dornoch (Cambusmore)			
Golspie (Golspie)			
M. nutans L. (107, 108).	Mountain Melick		
Woods. Rare.			
CREICH —	DORNOCH GOLS	PIE —	 
ASSYNT			
Creich (Invershin)			
Dornoch (Cambusmore)			
Golspie (Golspie)			
Assynt (Lochinver, Inchi	nadamph)		

# Bromus L.

<b>B. ramosus</b> Huds. (107, 1 Woods. Occasional.	108) Hairy	Brome			
		GOLSPIE			
ASSYNT					
$Golspie\ (Dunrobin)$					
Assynt (Lochinver, Inchn	adamph)				
B. sterilis L. (107, 108) E Waste places. Rare.	Barren Bro	me			
——————————————————————————————————————		GOLSPIE			KILDONAN
ASSYNT					
$Golspie\ (Dunrobin)$					
$Kildonan\ (Helmsdale)$					
$Assynt\ (Inchnadamph)$					
B. mollis L. (107, 108) Lo Fields, dunes, roadsides a					
CREICH LAIRG ROGART	DORNOCH	=	CLYNE	LOTH	KILDONAN
ASSYNT EDDRACHILLIS	DURNESS	TONGUE	FARR		
B. thominii Hardouin. (10 Roadsides and waste place LAIRG — D Lairg (Lairg) Dornoch (Loch Fleet) Clyne (Brora) Kildonan (Borrobal) Tongue (Melness, Scullom	ces. Oceasid ORNOCH		Brome CLYNE ——		KILDONAN
2 011g wo (112011000), 2000001	,				
<b>B. lepidus</b> Holmberg. (107) Fields and roadsides. Fre		nder Soft	Brome		
CREICH LAIRG ROGART	DORNOCH	GOLSPIE	CLYNE	LOTH	KILDONAN
EDDRACHILLIS	DURNESS	TONGUE	FARR		
B. commutatus Schrad. (Grassland. Rare.	107, 108) N	Ieadow B	rome		
CREICH		GOLSPIE			
ASSYNT	· ——				
Creich (Bonar Bridge)					
Golspie (Golspie)					
Assynt (Knockan)					
170					

Brachypodium Beauv.

	ticum (Hu Frequent.	ds.) Bea	auv. (107,	108) False	e Brome		
CREICH ASSYNT	LAIRG R		DORNOCH DURNESS		FARR		
A	gropyron	Gaertn.					
	um (L.) E voods. Rar		107, 108)	Bearded C	louch		
			DORNOCH	GOLSPIE			
ASSYNT			DURNESS	TONGUE	FARR		
Limesto  ASSYNT  Dornoch	ne rocks.	Very ran  nore)	(107, 108 re. DORNOCH		witch or	Don's C	couch
	ed fields a	nd was	7, 108) Co te places. I DORNOCH DURNESS	Frequent. GOLSPIE	uch CLYNE FARR	LOTH	KILDONAN
			Löve) A. & es. Freque	nt.	(107, 10	98) Sand	l Couch
ASSYNT	EDDRACH	ILLIS	DORNOCH DURNESS		FARR		KILDONAN
H	Elymus L.						
Seaward	arius L. (10 l side of de EDDRACH	unes. O	Lyme-graccasional.  DORNOCH  DURNESS	GOLSPIE	FARR		KILDONAN
ŀ	Iordeum L	4.					
	num L. (1	•	ll Barley				KILDONAN
—— Kildona	n (Helmsd	(ale)					

Koeleria Pers.

K. cristata (I Coastal pastu			sted Hair-	grass		
	RACHILLIS	DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
Trisetu	ım Pers.					
T. flavescens Grassy places		(107, 108)	Yellow O	at-grass		
ASSYNT ————————————————————————————————————	1962, M.M	(cC.W.)		CLYNE FARR		
Avena	L.					
A. fatua L. (1 Fields. Rare.  Rogart (Roga Tongue (Cold	- ROGART - rt, 1957, M.	 McC.W.)	TONGUE			
A. strigosa So Creich (Bonar				Oat		
Helicto	otrichon Bes	SS.				
H. pratense (Coastal turf.		7, 108) Me	adow Oat	-grass		KILDONAN
—— EDD	RACHILLIS	DURNESS				
Hairy Oat-gr Rough grassl	ass		8) Downy	Oat-gra	ss or	
CREICH LAIR		DORNOCH DURNESS		CLYNE FARR	LOTH	KILDONAN
Arrhei	natherum Be	29.117				

A. elatius (L.) Beauv. ex J. & C. Presl. (107, 108) False Oat-grass

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Roadsides and waste ground. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### Holcus L.

H. lanatus L. (107, 108) Yorkshire Fog
Rough grassland, waste places. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

H. mollis L. (107, 108) Creeping Soft-grass
Open woodlands. Common.
CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

### Deschampsia Beauv.

- D. caespitosa (L.) Beauv. (107, 108) Tufted Hair-grass
  Marshy fields, moors and woods. Common, widespread.

  CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
  ASSYNT EDDRACHILLIS DURNESS TONGUE FARR
- D. alpina (L.) Roem. & Schult. (107, 108) Alpine Hair-grass Stony places on mountains from 2000 to 3000 ft. Rare.

D. flexuosa (L.) Trin. (107, 108) Wavy Hair-grass
Heaths and moors. To 3000 ft. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

D. setacea (Huds.) Hack. (107, 108) Bog Hair-grass
Margins of peaty pools. Rare.

CREICH — — — — — — —

Creich (Invershin)
Eddrachillis (Sandwood)
Tongue (Tongue)
Farr (Altnaharra, Invernaver, Melvich)

#### Aira L.

A. praecox L. (107, 108) Early Hair-grass

On dry bare sandy and rocky slopes. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

A. caryophyllea L. (107, 108) Silver Hair-grass

Dry sandy soil on heaths and fields. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

### Ammophila Host

A. arenaria (L.) Link (107, 108) Marram Grass Coastal dunes. Frequent.

—— — DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

## ×Ammocalamagrostis P. Fourn.

×A. baltica (Schrad.) P. Fourn. (108)

On dunes, Rare,

Eddrachillis (Handa Island, 1938, J.W.H.-H. & H.H.-H.)

## Calamagrostis Adans.

C. epigejos (L.) Roth (108) Wood Small-reed or Bushgrass Damp woods, ditches. Rare.

ASSYNT EDDRACHILLIS
Assynt (Stoer, Oldany)

Eddrachillis (Handa Island)

# Agrostis L.

A. canina L. (107, 108) Brown Bent-grass

Wet meadows, heaths, grassland on hills. Common.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

A. tenuis Sibth. (107, 108) Common Bent-grass

On heaths, moors, waste ground. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

A. gigantea Roth (107, 108) Common Bent-grass or Black Bent-grass Fields and roadsides. Rare. DORNOCH -KILDONAN FARR A. stolonifera L. (107, 108) Fiorin or Creeping Bent-grass Grassland, coastal sands, salt-marsh. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Phleum L. P. bertolonii DC. (107, 108) Smaller Cat's-tail Grassland. Probably overlooked. KILDONAN GOLSPIE ASSYNT -FARR P. pratense L. (107, 108) Timothy Fields, roadsides. Occasional. CREICH DORNOCH GOLSPIE KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR Alopecurus L. A. myosuroides Huds. (108) Black Twitch or Black-grass An old record. Farr (Bettyhill, 1889, F.J.H. & J.C.M.) A. pratensis L. (107, 108) Meadow Foxtail Grassland. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN ASSYNT EDDRACHILLIS DURNESS TONGUE FARR A. geniculatus L. (107, 108) Marsh Foxtail Muddy margins of pools and ditches. Frequent. CREICH LAIRG ROGART DORNOCH GOLSPIE KILDONAN CLYNE LOTH ASSYNT EDDRACHILLIS DURNESS TONGUE FARR A. bulbosus Gouan (108) Tuberous Foxtail or Bulbous Foxtail

Milium L.

Marshes, Rare.

M. effusum L. (107) Wood Millet

Farr (Altnaharra, 1931, T.J.F.)

GOLSPIE

Golspie (Dunrobin, 1897, E.S.M.)

### Anthoxanthum L.

A. odoratum L. (107, 108) Sweet Vernal-grass

Heaths, moors, grasslands. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

#### Phalaris L.

P. arundinacea L. (107, 108) Reed Canary-grass
Marshes, ditches, margins of ponds. Frequent.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN
ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

P. canariensis L. (108) Canary-grass Casual. Durness (Durness)

#### Nardus L.

N. stricta L. (107, 108) Mat-grass

Heaths, moors, hill pastures. Common, widespread.

CREICH LAIRG ROGART DORNOCH GOLSPIE CLYNE LOTH KILDONAN

ASSYNT EDDRACHILLIS DURNESS TONGUE FARR

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Bold figures indicate definitive res	ferences in the County Flora
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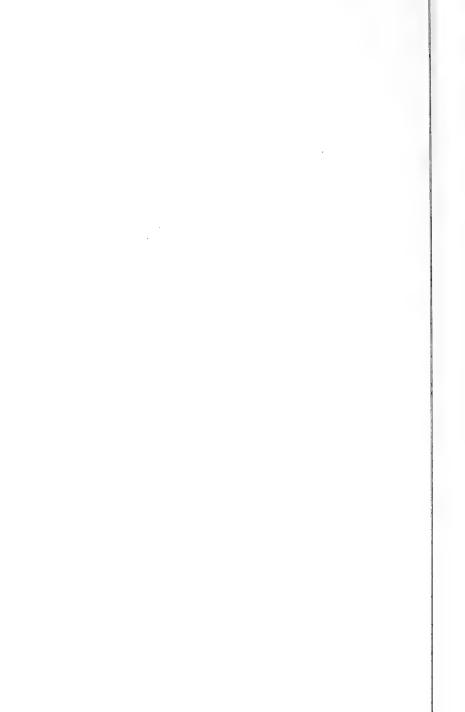
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